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Aims and Scope

The Journal of Institute of Public Enterprise is a peer-reviewed journal devoted to publication of professional and academic research on the policy and functional facets of public sector enterprises, public policy and public systems. The aim of the journal is to provide a platform for researchers, academicians, practitioners and policy-makers from diverse sectors to stimulate scholarly debate in the contemporary issues and emerging trends in Public Policy, Public and Private Enterprise Management, Joint Ventures, Public Administration, Privatization and Disinvestment both in India and abroad.

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Research Paper

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Impact of Labour Market Flexibility on Output and Employment in Organised Manufacturing Sector

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The restricted size of the labour market due to alleged inflexibility of labour laws has had a direct impact on employment generation and output growth. The amendments made in the Industrial Dispute Act, 1947 and the Contract Labour Act, 1970 are considered to make labour markets more flexible by making provisions for contractualization of the labour force. This paper explores empirically the impact of contractualization of labour force on employment growth and output growth in the organised manufacturing sector in India. We conclude that though labour market flexibility has no statistically significant impact on output growth, it is found to have a statistically significant negative impact on employment growth in the organised manufacturing sector in India.

Keywords : Labour Market Flexibility, Output Growth, Employment Growth, Organised Manufacturing Sector, Industrial Dispute Act.

Introduction

Industrialisation is considered to be a key engine in achieving rapid economic growth in an economy. Since the advent of planning, industrialisation became an important area of consideration for economic reforms by policymakers. The proportion of the working-age population (15-64) to total population increased at a rapid rate in the post-independence era, leading to problems related to the creation of jobs in the manufacturing sector. The announcement of the New Industrial Policy as a part of the Eighth-Five-Year-Plan (1992-1997) was an attempt to achieve future economic growth via changes in the structure of manufacturing sector. These changes employed policies like delicensing of industries, opening up of the economy for foreign direct investment and decreasing import tariffs. The aim was to promote growth and efficiency of the manufacturing sector which would help in generation of productive employment, an important ingredient

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that promotes economic competitiveness, leads to rise in exports and helps in achieving fast growth. Given the fact that labour is a concurrent subject in India, with regard to which both central and state governments can make provisions, we see a dual provisioning in the area. This dual provisioning leads to a wide range of labour laws and many lags in implementation. Allegedly, this makes labour market rigid and restricts the market growth.

Though the policies were theoretically strong, the size of Indian labour force, the structure of the Indian labour market and a multitude of complex labour laws caused a lag between the introduction and implementation of labour laws which distorted the labour market. Many economists and policymakers argue that rigidity in the labour market makes economy non-competitive, deters private and foreign investment and promotes the use of capital intensive technologies. The rigidity in the labour market dampens economic growth and causes unemployment. The amendment made in Chapter VB of Industrial Dispute Act (1947) and Contract Labour Act (1970), by the Prime Minister's Office in 2005 was an attempt to introduce labour market flexibility in the Indian Labour Market. The amendment made in Chapter VB of the Industrial Dispute Act 1947 modify provisions related to retrenchment and lay-off of permanent workers by providing more liberty to the employers, whereas the amendment made in the Contract Labour Act (1970) enlarges the sphere for casual and contractual workers by providing more opportunities to employers to hire casual and contractual workers in large extent. Further, the central government replaced existing labour laws with four labour codes post-2019. This targeted at improving labour market flexibility which has been a long standing demand of the capitalists.

In the light of the recent changes in labour laws, it becomes apt to study the proposition of that greater flexibility of labour laws leads to higher output growth and employment. The objective of this paper is to analyse the impact of increasing contractualisation of labour on Indian labour market in the organised manufacturing sector in India. Here labour market contractualisation refers to the increasing proportion of casual or contractual workers in total labour force. The famous neo-liberal proposition is that increasing casualization or contractualisation of the labour force increases economic growth and generates employment opportunities in the economy. This paper revisits the model given by Atulan Guha (2009) and explores the impact of labour market flexibility on employment and output growth. We consider a case of 71 manufacturing sector industries as

identified by the National Industrial Classification 2008 (NIC-2008) three-digit classification for the period between 2008-09 and 2017-18 as compared to Guha's study that took the case of 44 manufacturing sectors identified in NIC-1998, a 3-digit classification for a period between 1994-95 and 2003-04. The present study enriches the literature on the issue of labour flexibility by presenting an analysis of recent data. Section-2 of the paper reviews the available literature on the subject. Section-3 of paper explains the empirical model used to study the impact of labour market flexibility on output and employment in the organised manufacturing sector in India, followed by a Section on reporting important findings and conclusions derived from the study.

Review of Literature

The issue of labour market flexibility in India has continuously been in debate. The demand of making labour 'hire and fire' policy more favourable for the employers is contentious because it curtails the rights of labour and make them vulnerable to the capital. With central government having passed a new labour code in the Parliament, this discussion has become more relevant. A study by Atulan Guha (2009), has used data provided by the Annual Survey of Industries for the period 1994-95 to 2003-04 to study the impact of labour market flexibility on output growth and employment growth. The study concluded that there was no significant impact of labour market flexibility on output growth and employment growth. However, the data used needs an update to understand the impacts of contractualisation of labour markets on associated variables in context of the present scenario. A study by Upadhyaya and Kumar (2017) finds evidence that labour law reforms in Rajasthan and other states have succeeded in attracting investment and boosting investment. In fact, labour laws are tough on paper but their enforcement has been lax due to ineffective inspection and prosecution (Sundar & Sapkal, 2019). In the post-Covid period a number of state governments have announced a slew of changes, stating that new industrial units will be provided with relief from all related acts, except minimum wages, industrial safety, and employees' compensation (Nanda, 2020). There is considerable recent evidence of de facto flexibility even among establishments covered by the more stringent provisions of existing labour laws. Shyam Sundar (2018) lists no fewer than 18 stratagems used by employers to avoid the restrictions imposed by labour laws. Roychowdhury (2018) proves that establishments with more than 100 workers exhibited both higher growth

and variability (as measured by the coefficient of variation) of employment than did smaller establishments, both during the period from 1979 to 2008 and in individual sub-periods. Goldar and Aggarwal (2019) found that between 2008-09 and 2012-13, "among plants having more than 100 directly employed workers in a given year, about one-fifth do actually cut down the employment of such workers by 25 per cent or more in the following year" – and there was hardly any difference between "flexible" and "inflexible" states.

A study by Lucas and Fallon (1991) analysed the impact of labour rigidity (firing rigidity which requires a firm to take government permission before firing worker and closure of the firm in the case of large firms) on employment in India. The study concludes that rigid laws lead to reduction of employment in over 80 per cent of industries. The employment growth on an average reduced by 17.5 per cent in organised manufacturing sector due to rigid firing and closure laws. A similar study of Lucas and Fallon (1993) analyse the impact of rigid firing laws in case of Zimbabwe. The study concluded that employment growth on an average reduced by 25.2 per cent in considered 29 Zimbabwean industries due to rigid firing law. A study by Amin (2009) took the case of India to explore employment levels in formal retail stores by using a combination of indexes, index from Besley and Burgess (2004) and a firm survey based index of enforcement. The study says that there is a reduction in employment in retail stores due to stringent labour regulations. However, the methodology of this study has been under question due to various reasons. Fagernas (2007) took the case of India to explore the impact of amendments in the Industrial Dispute Act on share of industrial, service, agricultural, casual, and self-employment to total employment. The study concluded that the relationship between pro-worker regulations and employment shares was not consistent.

A study by Pages and Roy (2006) describes a significant rise in the proportion of contract labour in the organised manufacturing sector in India. The proportion of contract labour rose from around 12 per cent in 1985 to around 23 per cent in 2002, if one considers the case of India as a whole, but there exists a state-wise disparity. For instance, states like Assam and Karnataka depict a falling trend in the proportion of contract labour, while states like Andhra Pradesh depict a rising trend in the employment of contract workers. The case of Andhra Pradesh shows a rise in contract labour employment from 33.8 per cent in 1985 to 62 percent in 2002. The study by Bhandari and Heshmati (2006) reinforces the results by portraying that during the period 1992-2001, there was a two-fold

increase in the proportion of contract workers and temporary workers in the Indian manufacturing sector. A recent study by Ahluwalia et al. (2018) concludes that inflexible labour regulations have acted as a constraint to the growth of good jobs by limiting the growth of India's labour intensive manufacturing industries in the formal sector. Even in the case of existing labour market conditions when there exists labour rigidities, firms appear to be using contract workers to their strategic advantage against unionized workers to keep their bargaining power and wage demand in check (Kapoor & Krishnapriya, 2019). In an empirical study on the question of labour flexibility and unemployment Vergeer and Kleinknecht (2021) proves that the immediate costs for workers as well as the loss of innovative dynamism and lower gains in labour productivity growth are the price we should be ready to pay, as greater labour market flexibility brings down unemployment rates.

There are several studies by various authors like Caballero et al. (2004), Djankov and Ramalho (2009), Heckman and Pages (2000), Lustig and McLeod (1996) which explore the relationship between rigid labour regulations and employment by using cross-country data analysis and found that rigid labour regulations leads to low employment generation. A study by Shanthi Nataraj et al. (2012) dealt with the impact of labour regulations which includes minimum wages, mandatory employee benefits, severance pay, unemployment insurance, employment taxes, hours restrictions, hiring rigiditiy, firing rigidity, and collective bargaining on employment outcomes which include employment, unemployment, hours worked. The study concludes that regulations impose a negative impact on formal employment but compensate for a positive impact on informal employment in low-income countries.

Andalon and Pages (2008) took up the case of Kenya to study the impact of minimum wages measured by Kaitz ratio and ratio of minimum to median wage on total employment which includes shares of the salaried formal, informal, and self-employed in total employment. The study concludes that high Kaitz ratio implied low share of salaried formal in total employment and high share of self-employed in total employment and no significant impact on the share of informal in total employment.

A study based on the manufacturing sector of Bangladesh by Anderson et al. (1991) analyse the impact of minimum wages and right to unionize on formal employment. The study shows evidence of reduction in formal employment due to minimum wages, while there is an insignificant impact of unionization

on formal employment. A study by Lorenzo E. Bernal et al. (2012) looks into the case of 97 OECD industrial countries over the period 1980-2008 and explore the effect of labour market flexibility on unemployment outcomes by using the static model specification and dynamic model specification estimation. The study concludes that labour market flexibility indicators like hiring and firing regulations and cost have a strong and negative effect on total, youth, and long-term unemployment.

Alvaro Forteza et al. (2001) took the case of 119 countries along with data from 449 adjustments in credits and loans given by the World Bank over the period 1980 to 1996 to analyse the impact of labour market policies and institutions on the effectiveness of economic reforms by comparing annual growth rates. The study concluded that before adjustment to deeper recessions and after adjustment, slower recoveries were experienced by those countries which have rigid labour market policies and institutions. It also depicted that political interests get more benefit than economic interests due to labour market rigidity, and laws related to minimum wages and mandatory benefits do not have a negative impact on economic growth.

A study by Murat Tasci et al. (2011) shows that during the Great Depression, countries like the U.S. which have relatively flexible labour markets depict the rise in unemployment if compared to France, which has comparatively rigid labour market policies and institutions. If one compare the short-term and the long-run dynamics then labour market rigidities keeps unemployment low in the short-run, but in the long-run a rise in the labour market rigidity leads to a rise in unemployment. A causal correlation shows that there was no additional rise in unemployment despite a steep fall in GDP in countries that have rigid employment protection. Lazear (1990) took the case of the European countries to analyze the impact of severance pay on employment. One of the job security provisions sanctioned by European countries required employers to pay compensation to employees on separation and advance notice before separation. This kind of provision affects employment opportunities in a well-functioned market. The study confirms a reduction in employment generation due to high severance pay in European countries. In this situation, employers prefer to sub-contract work to reduce high severance costs.

Botero et al (2004) took the case of 85 countries to depict that an increase in labour protective regulations and social security provisions led to a fall in labour participation rate and a rise in unemployment in the economy.

Similarly, a study by Almeida and Carneiro (2007) took firm level data to show that stringent labour regulation disincentives firms to increase the size of firms, which reduces the firm's ability to develop and constrains economic outcomes and reduces firm preference to employ informal workers. Thus contractualisation of labour markets is considered as a way to enhance the firm's ability to grow and to an increase in productivity.

A study by Micco and Pages (2007) took the case of developed and developing countries both and used a difference-in-difference tests to show that an increase in stringent legislation related to employment protections reduces the manufacturing sector's ability to promote output and employment growth. Our study takes this debate on labour market flexibility in the context of India-based on the latest data available. In that sense, it is a new study based on the model provided earlier by the economists. The present study is an addition on this important question with the latest data and has incorporated a larger number of industries for the Indian manufacturing sector.

Data Source and Description

In order to analyse the impact of labour market contractualization on output growth and employment growth for the organised manufacturing sector in India, data for 71 manufacturing sector industries (according to three-digit National Industrial Classification 2008) is collected for the period 2008-2009 to 2017-2018 from the Annual Survey of Industries (ASI) data of the Central Statistical Organisation (CSO) from concorded series made available by the Economic and Political Weekly Research Foundation's India Time Series database (EPWRFITS). The variables like total output, total input cost, wages to workers, workers employed, and worker employed through contractors are equivalent to value of output, total inputs, wages to workers, number of workers, and number of persons employed through contractors are taken from the ASI dataset. To obtain the values at a constant price of 2008-09, we used the WPI series provided by the Reserve Bank of India (RBI) handbook for Indian Economy with the base year 2008-09 =100. The variable wages to workers and total inputs are deflated using WPI instead of the Consumer Price Index (CPI) because the concern here is to derive the cost of labour to entrepreneurs.

The estimation of variable net fixed capital stock requires the use of ASI and National Accounts Statistics (NAS) of CSO. The analysis required data of net fixed capital stock for present production, but ASI provides data at book value. Hence the variable

is estimated by combining the data provided by ASI and NAS and by using the Perpetual Inventory Accumulation Method (PIAM) given by Roychaudhuri (1996). Correlation coefficients are estimated to show the relation of growth of labour market flexibility with output growth (at 2008-09 rate) and employment growth.

Table-1 reveals the values of the correlation coefficient are close to zero. So, there is no linear relationship between the growth of labour market flexibility with output growth and employment growth. The scatter plot of the growth of labour market flexibility and output growth (Graph-1) and growth of labour market flexibility and employment growth (Graph-2) shows no pattern of relation.

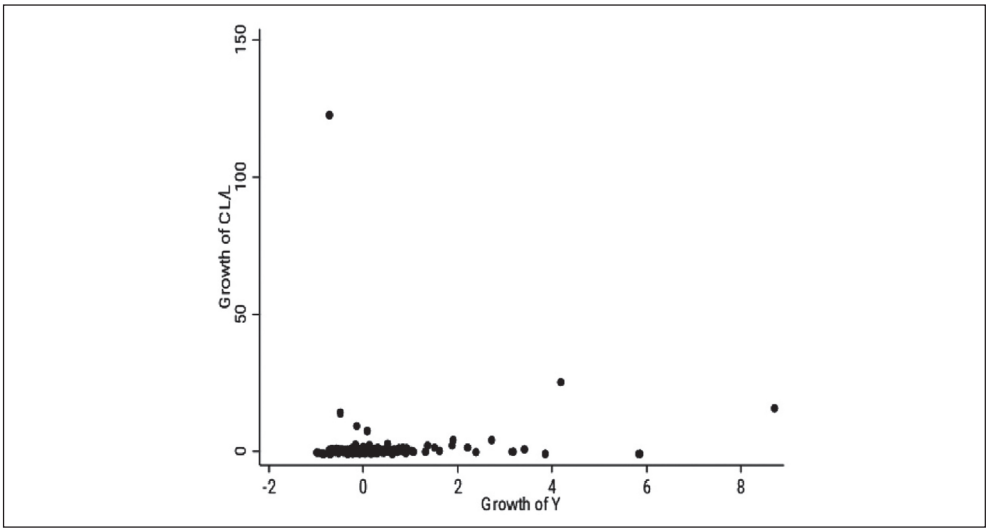
The dataset used to derive the models consists of observations for 71 sectors over a period of 10 years and models are based on balanced panel data. The models are estimated by assuming the presence of a sector and time specific effects in the constant term.

Table-1 : Correlation Coefficient of Labour Market Flexibility with Employment Growth and Output Growth

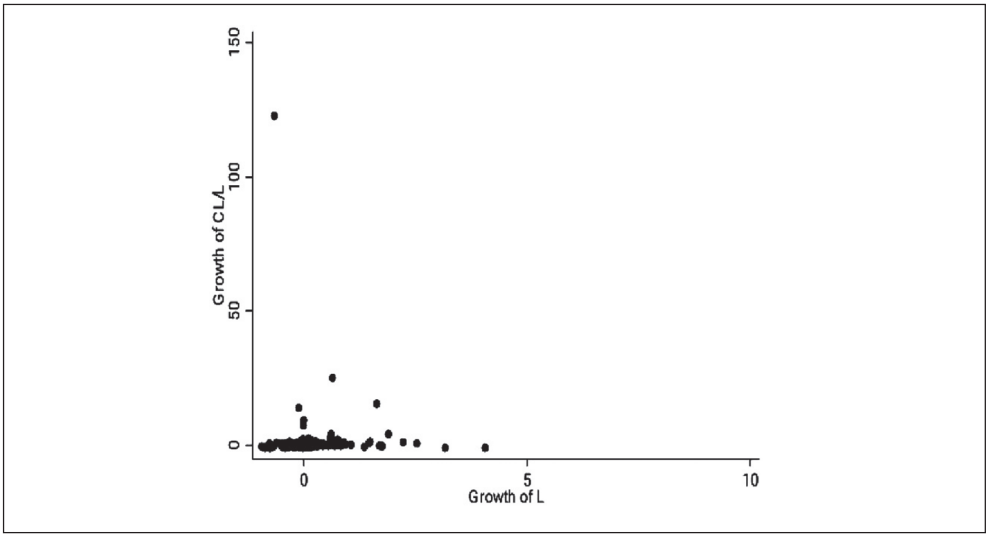
	Employment Growth Rate	Output Growth Rate
Growth in Labour Market flexibility	-0.0469(0.2396)	0.0243(0.5426)

Value in parenthesis give the level of significance.

Graph-1 : Scatterplot between Labour Market Flexibility and Output Growth



Graph-2 : Scatterplot between Labour Market Flexibility and Employment Growth



Relation between Output Growth and Labour Market Flexibility

Output growth in particular sector depended on factors like output growth in the previous year, growth of capital stock in the previous year and the year before the previous year, growth in technological change (ratio of growth in capital stock to growth in workers employed), growth rate of input per unit of output and growth in labour market flexibility.

A firm's decision to produce output in the current year depends upon its experience regarding demand for its output in the previous year, and a rise in demand for output in the previous year induces the firm to produce higher output in the current year. The growth of output in current year depends upon the investment decision made by the firm in the past one or two years. The growth of capital stock in previous year or year before previous years leads to an increase in production capacity, which induces high output growth. The growth of output also depends upon the technology factor, which is defined as a ratio between growth in capital stock and growth in labour. An improvement in technology induces productivity, which leads to high output growth. The growth of output further depends upon the variable cost of production, which includes the cost of labour, raw materials, and energy. A rise in cost of factors of production leads to a rise in production cost and adversely affects the growth of output. Lastly, the growth of output depends upon the ratio of growth of workers employed

by contractors to the growth of total workers employed. The rising contractualization of labour force leads to a reduction in production cost, expanded investment, and enhanced capital-intensive production.

The following model is estimated to capture the impact of labour market flexibility on output growth :

$$\frac{Y_t - Y_{t-1}}{Y_{t-1}} = \alpha + \beta_1 \frac{Y_{t-1} - Y_{t-2}}{Y_{t-2}} + \beta_2 \frac{K_{t-1} - K_{t-2}}{K_{t-2}} + \beta_3 \frac{K_{t-2} - K_{t-3}}{K_{t-3}} + \beta_4 \frac{\frac{K_t - K_{t-1}}{K_{t-1}}}{\frac{L_t - L_{t-1}}{L_{t-1}}} + \beta_5 \frac{\frac{W_t}{Y_t} - \frac{W_{t-1}}{Y_{t-1}}}{\frac{W_{t-1}}{Y_{t-1}}} + \beta_6 \frac{\frac{INP_t}{Y_t} - \frac{INP_{t-1}}{Y_{t-1}}}{\frac{INP_{t-1}}{Y_{t-1}}} + \beta_7 \frac{\frac{CL_t}{L_t} - \frac{CL_{t-1}}{L_{t-1}}}{\frac{CL_{t-1}}{L_{t-1}}} + u_t$$

Where,

$\frac{Y_t - Y_{t-1}}{Y_{t-1}}$ implies growth of output of a particular sector

$\frac{Y_{t-1} - Y_{t-2}}{Y_{t-2}}$ implies growth of output of a particular sector with lag 1

$\frac{K_{t-1} - K_{t-2}}{K_{t-2}}$ implies growth of capital stock of a particular sector with lag 1

$\frac{K_{t-2} - K_{t-3}}{K_{t-3}}$ implies growth of capital stock of a particular sector with lag 2

$\frac{\frac{K_t - K_{t-1}}{K_{t-1}}}{\frac{L_t - L_{t-1}}{L_{t-1}}}$ implies technological change of a particular sector

$\frac{\frac{W_t}{Y_t} - \frac{W_{t-1}}{Y_{t-1}}}{\frac{W_{t-1}}{Y_{t-1}}}$ implies growth in wage cost per unit of output of a particular sector

$\frac{\frac{INP_t}{Y_t} - \frac{INP_{t-1}}{Y_{t-1}}}{\frac{INP_{t-1}}{Y_{t-1}}}$ implies growth in total input per unit of output of a particular sector

$\frac{\frac{CL_t}{L_t} - \frac{CL_{t-1}}{L_{t-1}}}{\frac{CL_{t-1}}{L_{t-1}}}$ implies growth in labour market flexibility of a particular sector.

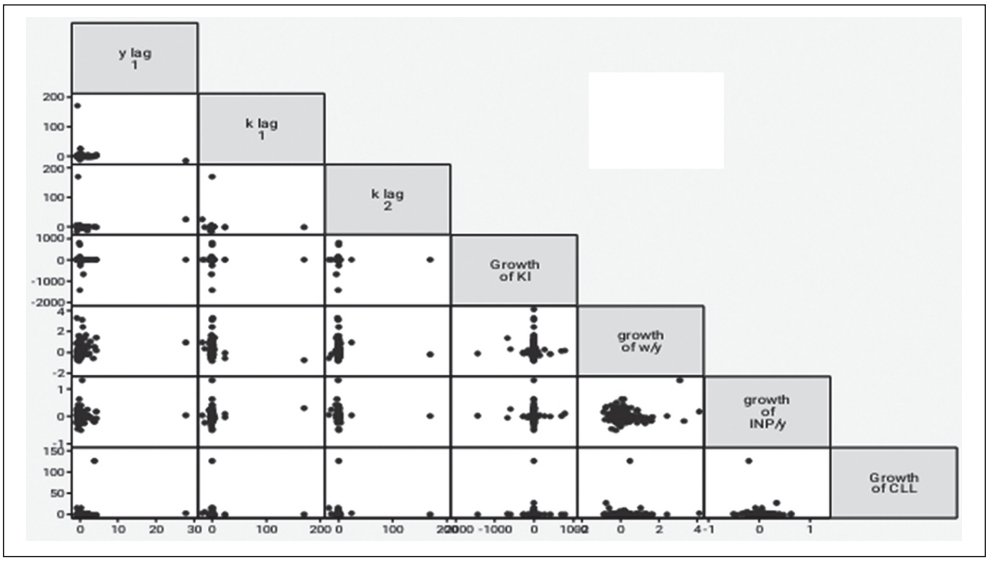
Theoretically, growth rate of capital stock with lag 1, growth rate of capital stock with lag 2, technological change and growth in labour market flexibility show positive effects on output growth, whereas growth of output with lag 1, growth in wage cost per unit of output and growth in total input per unit of

output show a negative influence on growth of output. The descriptive statistics for Model-1 is shown in Table-2, where all the variables depict three types of variations, i.e, overall, between, and within variation. The overall variation depicts variation over sector and time. Between variation depicts variation over sector, and the within variation depicts variation over time.

Table-2 : Descriptive Statistics for Model-1

Variable		Mean	Std. dev.	Min	Max	Observations
Growth rate of output	Overall Between Within	0.1818983	1.235515 0.5456597 1.110174	-0.9712483 -.0348415 -5.448985	27.8068 4.659635 23.32906	N=639 n=71 T=9
Growth rate of output Lag 1	Overall Between Within	.1780568	1.256812 .4869808 1.159893	-.9712483 -.0603262 -4.947544	27.8068 4.154352 23.8305	N=568 n=71 T=8
Growth rate of net fixed capital stock with lag 1	Overall Between Within	.30366	7.340849 2.48312 6.913632	-17.04319 -1.91578 -23.99359	169.4517 20.6781 149.0772	N=568 n=71 T=8
Growth rate of net fixed capital stock with lag 2	Overall Between Within	.2856147	7.772869 2.827349 7.247088	-17.04319 -2.678759 -26.90994	169.4517 23.5764 146.1609	N=497 n=71 T=7
Technological change	Overall Between Within	-1.242787	84.209 28.189 79.41347	-1437.528 -160.133 -1278.638	793.8366 82.85111 709.7427	N=639 n=71 T=9
Growth rate of wage cost per unit of output	Overall Between Within	.068928	.3715226 .1006693 .3578013	-.8698177 -.0498505 -1.192413	4.136206 .6271135 3.88234	N=639 n=71 T=9
Growth rate of total input per unit of output	Overall Between Within	.0058777	.1066714 .0174185 .1052577	-.506182 -.011575 -.5734077	1.314852 .1236947 1.197035	N=639 n=71 T=9
Growth rate of labour market flexibility	Overall Between Within	.3958047	5.262333 2.245488 4.87202	-1 -.0850733 -18.72737	126.7135 18.12318 108.9861	N=639 n=71 T=9

Graph-3 : Scatterplot Showing Correlation Pattern Among Regressors



Theory shows existence of multicollinearity between growth in labour market flexibility and regressors like growth of capital stock, growth of wage costs per unit of output, and growth of technological change. In order to identify the presence of multicollinearity among regressors, pair-wise correlation among regressors (Table-3) and scatterplot (Graph-3) is used. The value of the pair-wise correlation coefficient among regressors is very low, which shows evidence against multi-collinearity. The scatterplot among regressors also depicts the same relationship.

Regression Result

In order to estimate the above regression model, we begin by pointing out that panel data used has both sector-specific and time-specific effects. Time-specific effect is captured by introducing six dummies which separate out the effect of each year, after that random effect model is estimated. The Hausman test is used for comparison between fixed effects and a random effect model. The null hypothesis is that random effect is the preferred model and unobserved error terms are uncorrelated with one or more regressors. The test shows a P-value of 0.000. Hence, the null hypothesis is rejected at 1 per cent level of significance, and we conclude that the fixed effect model is accepted in favour of random effect model, and that unobserved error terms are correlated with the regressors. Since the fixed effect model assumes that unobserved error terms are correlated with one or more

Table-3 : Pairwise Correlation Among Regressor

	Growth Rate of Output with Lag 1	Growth Rate of Net Fixed Capital Stock with Lag 1	Growth Rate of Net Fixed Capital Stock with Lag 2	Techno-logical Change	Growth Rate of Wage Cost per Unit of Output	Growth Rate of Total Input per Unit of Output	Growth Rate of Labour Market Flexibility
Growth rate of output with lag 1	1.000						
Growth rate of net fixed capital stock with lag 1	-0.1112 (0.0080)	1.000					
Growth rate of net fixed capital stock with lag 2	0.1108 (0.0134)	-0.0207 (0.6455)	1.000				
Technological change	-0.0114 (0.7861)	0.0016 (0.9697)	0.0074 (0.8690)	1.000			
Growth rate of wage cost per unit of output	0.1781 (0.0000)	-0.1184 (0.0047)	-0.0068 (0.8800)	-0.0370 (0.3506)	1.000		
Growth rate of total input per unit of output	-0.0037 (0.9305)	0.1217 (0.0037)	-0.0180 (0.6893)	-0.0075 (0.8493)	0.0793 (0.0451)	1.000	
Growth rate of labour market flexibility	0.1274 (0.0025)	-0.0119 (0.7794)	-0.0118 (0.7941)	0.0003 (0.9933)	0.0521 (0.1918)	-0.0586 (0.1419)	1.000

Value in parenthesis give the level of significance.

regressors. Hence, the fixed effect model offers a solution to the problem of endogeneity without using the instrumental variables.

The tests for cross-sectional dependence and serial correlation are applied in the case of a macro panel with long-time series (approx. 20 to 30 years) and not

in a micro panel with short-time series, so the tests are not required in this case. In order to identify the problem of heteroscedasticity, the Modified Wald test is used, which assumes constant variance. The result shows a P-value of 0.000. So we reject the null hypothesis of homoscedasticity at a one per cent level of significance and conclude that heteroscedasticity is present.

Since heteroscedasticity is detected, so a robust technique is used to estimate the Fixed effect model which provides robust standard error which corrects heteroscedasticity.

The Fixed Effect Panel Regression Model is showed in Table-4.The model shows that the growth rate of output is significantly affected by by the rate of output with lag 1. By averaging over time, 53 sectors out of 71 sectors show a negative output growth in the previous year. This implies that firms will set their production targets low for this year given the negative output growth in the previous year.

Table-4 : Fixed Effect Panel Regression with Robust Standard Error

Independent Variable	Value of Coefficient	Std Error	t value	P>|t|	Statistical Significance
Growth rate of output lag 1	-0.2689383	0.0272508	-9.87	0.000	Significant
Technological change	-0.0003623	0.0004221	-0.86	0.394	Insignificant
Growth rate of wage cost per unit of output	-0.9451139	0.55344	-1.71	0.092	Significant
Growth rate of total input per unit of output	1.781257	1.4202	1.25	0.214	Insignificant
Growth rate of net fixed capital stock with lag 1	0.0056985	0.0241724	0.24	0.814	Insignificant
Growth rate of net fixed capital stock with lag 2	-0.0035501	0.002412	-1.47	0.146	Insignificant
Growth rate of labour market flexibility	0.001252	0.0022812	0.55	0.585	Insignificant
Constant term	0.2555684	0.0240019	10.65	0.000	Significant

Dependent Variable : Growth rate of output	No. of obs: 489	F(7,70)=989.7 Prob>F=0.000	R-square (within)=0.1797 (between)=0.8506 (overall)=0.0338	Corr(u_i,X_b)= -0.3148	Sigma(u)=1.020242 Sigma(e)=1.147798 Rho= 0.44136806

Also the growth rate of output is significantly negatively affected by the growth rate of wage cost per unit of output. Averaging over time, 12 sectors out of 71 sectors show a negative growth rate of wage cost per unit output. This implies that reduction in wage cost leads to a reduction in production cost and hence spurs output growth. The model shows that there is no significant impact of growth rate of output with lag 1, technological change, growth rate of net fixed capital stock with lag 1 and lag 2, and growth rate of labour market flexibility on output growth.

Employment Growth and Labour Market Flexibility

Employment growth in a sector refers to an increase in demand for labour by all firms in the particular sector. It depends on factors like growth rate of output, growth rate of choice of technology (capital per labour), growth rate of wages per unit of labour and growth in labour market flexibility (ratio of number of contract labour hired by employer to total labour). Since labour demand is a derived demand it is influenced by growth of output. As a firm decides to increase output it requires an increase in employment of factors of production and labour being a factor of production witnesses an increase in employment, not only in the short run by virtue of it being a variable factor, but also in the long run because we are a labour abundant economy and labour is cheaper than capital and therefore should be the more employable factor of production.

Labour employment growth is affected by growth in wage rates. If wages paid to labour were to increase, the demand for labour would become less attractive and therefore employers will decrease employment of labour and substitute it with capital. However, if we change the nature of employment of labour from 'permanent' or 'regulated' employment to 'casual' or 'contractual' employment with low wages and no security, it will lead to an increase in labour employment but this labour will only be casually employed. Faced with casual labour, the employer will have to rely on capital. Therefore contractualization will lead to a rise in capital-intensive production, reduce production cost and spur output growth.

The following model is estimated to capture the impact of labour market flexibility on employment growth :

$$\frac{L_t - L_{t-1}}{L_{t-1}} = \alpha + \beta_1 \frac{Y_t - Y_{t-1}}{Y_{t-1}} + \beta_2 \frac{\frac{K_t - K_{t-1}}{K_{t-1}}}{\frac{L_t - L_{t-1}}{L_{t-1}}} +$$

$$\beta_3 \frac{\frac{W_t}{L_t} - \frac{W_{t-1}}{L_{t-1}}}{\frac{W_{t-1}}{L_{t-1}}} + \beta_4 \frac{\frac{CL_t}{L_t} - \frac{CL_{t-1}}{L_{t-1}}}{\frac{CL_{t-1}}{L_{t-1}}} + u_t$$

Where,

$\frac{L_t - L_{t-1}}{L_{t-1}}$ implies employment growth

$\frac{Y_t - Y_{t-1}}{Y_{t-1}}$ implies growth rate of output

$\frac{\frac{K_t - K_{t-1}}{K_{t-1}}}{\frac{L_t - L_{t-1}}{L_{t-1}}}$ implies growth rate of technological change

$\frac{\frac{W_t}{L_t} - \frac{W_{t-1}}{L_{t-1}}}{\frac{W_{t-1}}{L_{t-1}}}$ implies growth rate of wage rate

$\frac{\frac{CL_t}{L_t} - \frac{CL_{t-1}}{L_{t-1}}}{\frac{CL_{t-1}}{L_{t-1}}}$ implies growth rate of labour market flexibility

Theoretically, the growth rate of output and growth rate of labour market flexibility have a positive impact on employment, but growth rates of technological change and wage rate have negative influence on employment growth. The descriptive statistics for Model-2 is shown in Table-5, where all the variables depict three types of variations, i.e., overall, between, and within variation. The overall variation depicts variation over sector and time. Between variation depicts variation over the sector, and the within variation depicts variation over time.

Theory shows the existence of a multicollinearity between growth in labour market flexibility and regressors like growth of output, technological change, and growth of wage rate. In order to identify the presence of multicollinearity among regressors, pairwise correlation among regressors (Table-6) and scatterplot (Graph-4) is used. The value of the pairwise correlation coefficient between regressors is very low, which shows evidence against multicollinearity. The scatter-plot among regressors also depicts the same relationship.

Regression Result

In order to estimate the above regression model, we begin by assuming that panel data has both sector-specific and time-specific effects. The time-specific effect is captured by introducing eight dummies which separate out the effect of each year. After that random effect model is estimated. The Hausman test is used for comparison between fixed effect and random effect models, which assumes the hypothesis that random effect is the preferred model and unobserved error terms are uncorrelated with one or more regressors. The test showed P-value at 0.000. Hence, the null hypothesis is rejected at 1 per cent level of significance, and we conclude that the fixed effect model is accepted in favour of the random effect model, and unobserved error terms are correlated with the regressors.

Table-5 : Descriptive Statistics for Model-2

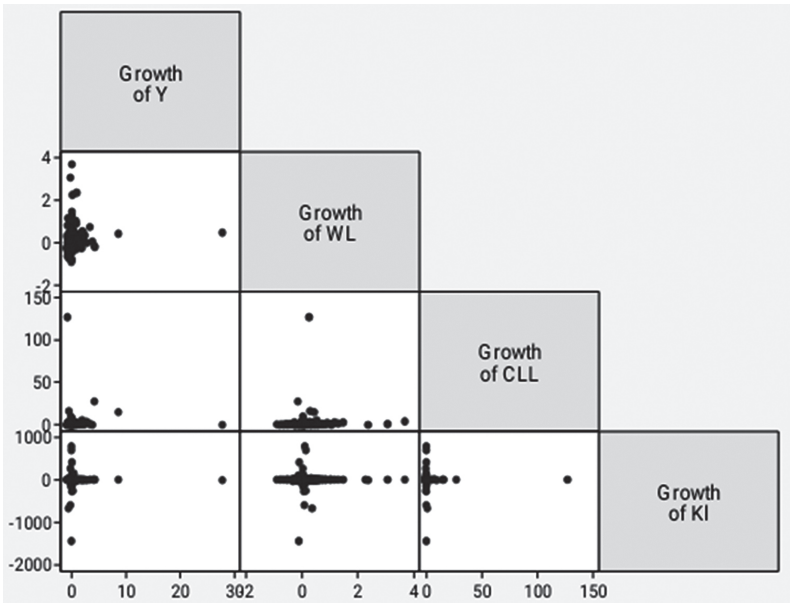
Variable		Mean	Std. dev.	Min	Max	Observations
Employment Growth	Overall Between Within	.099287	.5126112 .1669833 .4850118	-.908078 -.0503999 -2.123188	6.553846 1.314397 5.33873	N=639 n=71 T=9
Growth rate of output	Overall Between Within	.1818909	1.235516 .5456613 1.110174	-.9712483 -.0348415 -5.448993	27.8068 4.659635 23.32905	N=639 n=71 T=9
Technological change	Overall Between Within	-1.242787	84.209 28.189 79.41347	-1437.528 -160.133 -1278.638	793.8366 82.85111 709.7427	N=639 n=71 T=9
Growth of wage rate	Overall Between Within	.0973783	.3270765 .0836858 .3163282	-.8784804 .0034556 -1.339363	3.693702 .5582606 3.357671	N=639 n=71 T=9
Growth rate of labour market flexibility	Overall Between Within	.3958047	5.262333 2.245488 4.87202	-1 -.0850733 -18.72737	126.7135 18.12318 108.9861	N=639 n=71 T=9

Table-6 : Pair-Wise Correlation Among Regressor

	Growth Rate of Output	Technological Change	Growth Rate of Wage Rate	Growth Rate of Labour Market Flexibility
Growth rate of output	1.000			
Technological change	0.0094 (0.8123)	1.000		
Growth rate of wage rate	0.0731 (0.0649)	-0.0001 (0.9970)	1.000	
Growth rate of labour market flexibility	0.0243 (0.5426)	0.0003 (0.9931)	0.0538 (0.1770)	1.000

Value in parenthesis give the level of significance.

Graph-4 : Scatterplot Showing Correlation Pattern Among Regressors



Since the fixed effect model assumes that unobserved error terms are correlated with one or more regressors. Hence the fixed effect model offers a solution to the problem of endogeneity without using instrumental variables.

The hypothesis that assumes the coefficient of a dummy variable as zero, assumes a P-value of 0.0000, which can be rejected at 1 per cent level of significance. Hence we cannot drop the time specific dummy variables from the model. The tests for cross-sectional dependence and serial correlation are applied in the case of macro panel with a long-time series (approx. 20 to 30 years) and not in micro panels with short-time series. So the tests are not required in this case. In order to identify the problem of heteroscedasticity, Modified Wald test is used, which assumes constant variance. The result shows a P-value of 0.000. So we reject the null hypothesis of homoscedasticity at a 1 per cent level of significance and conclude that heteroscedasticity is present. Since the heteroscedasticity is detected, a robust technique is used to estimate the fixed effect of the least square dummy variable model which provides robust standard error which corrects heteroscedasticity.

The Fixed Effect Panel Regression Model is shown in Table-7. The employment growth is statistically

positively affected by the growth rate of output. It explains that growth in output entails more employment of factors of production and firms can easily adjust their labour input with changes in the production process. Also employment growth is statistically positively affected by technological change. Rise in technological change means a rise in capital-labour ratio, which means a shift in production towards higher capital-intensive rather than making it more labour-intensive. But a rise in employment growth might highlight the rise in employment of labour, engaged in sophisticated and highly technical work.

Table-7 : Fixed Effect Panel Regression with Robust Standard Error

Independent Variable	Value of Coefficient	Std Error	t value	P>|t|	Statistical Significance
Growth rate of output	0.3005249	0.0395784	7.59	0.000	Significant
Technological change	0.0000628	0.0000289	2.17	0.033	Significant
Growth of wage rate	-0.102882	0.1406492	-0.73	0.467	Insignificant
Growth rate of labour market flexibility	-0.0059365	0.0008283	-7.17	0.000	Significant
Year					
2010	-0.0523597	0.0621867	-0.84	0.403	Insignificant
2011	0.0094011	0.0795566	0.12	0.906	Insignificant
2012	-0.1183494	0.0599346	-1.97	0.052	Significant
2013	-0.092077	0.0507534	-1.81	0.074	Significant
2014	0.034173	0.0740589	0.46	0.646	Insignificant
2015	-0.3035958	0.059644	-5.09	0.000	Significant
2016	0.2671779	0.0835506	3.20	0.002	Significant
2017	-0.0478059	0.0618485	-0.77	0.442	Insignificant
Constant term	0.0801035	0.0587106	1.36	0.177	Insignificant

Dependent Variable : Employment Growth	No. of obs: 631	F(12,70)=80.71 Prob>F=0.000	R-square (within)=0.6637 (between)=0.7381 (overall)=0.6494	Corr(u_i,X_b)= -0.3071	Sigma(u)=0.102609 Sigma(e)=0.271074 Rho=0.12532658

The employment growth is statistically affected by the growth of labour market flexibility. The impact of growth of labour market flexibility on employment growth contradicts the theoretical assumption. The rise in labour market flexibility provides employers an edge to adjusting their production process during market shocks through provisions like unrestricted hiring and firing. But labour faces uncertainty due to the lack of unemployment benefits and state safety net, which might affect supply-side decision of workers entering the labour market.

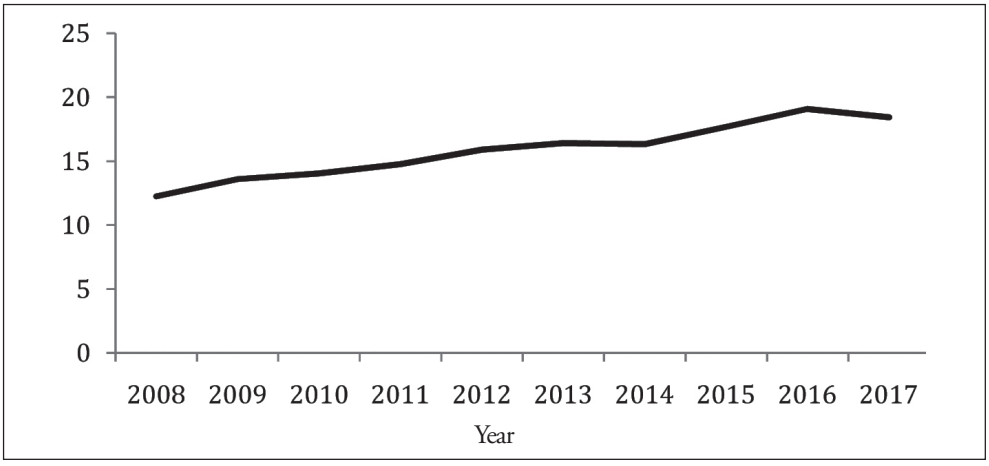
The dummy variable constant coefficient show that keeping all other variables constant, the year 2012, 2013, and 2015 point out statistically negative and the year 2016 reveal statistically positive impact on employment growth compared to year 2009.

The model shows that there is no significant impact of the growth of wage rate on employment growth.

Conclusion

This paper explores the impact of labour market flexibility defined by the ratio of workers employed through contractors (read contractualisation of labour) to total workers on employment growth and output growth. Using the Least Square Dummy Variable model and data from the Annual Survey of Industries the paper found that there exists a negative significant impact of labour market flexibility on employment growth, while there exists no impact of labour market flexibility on output growth.

Graph-5 : Net Fixed Capital Stock-Labour Ratio (in ₹ lakh/worker, at 2008-09 prices)



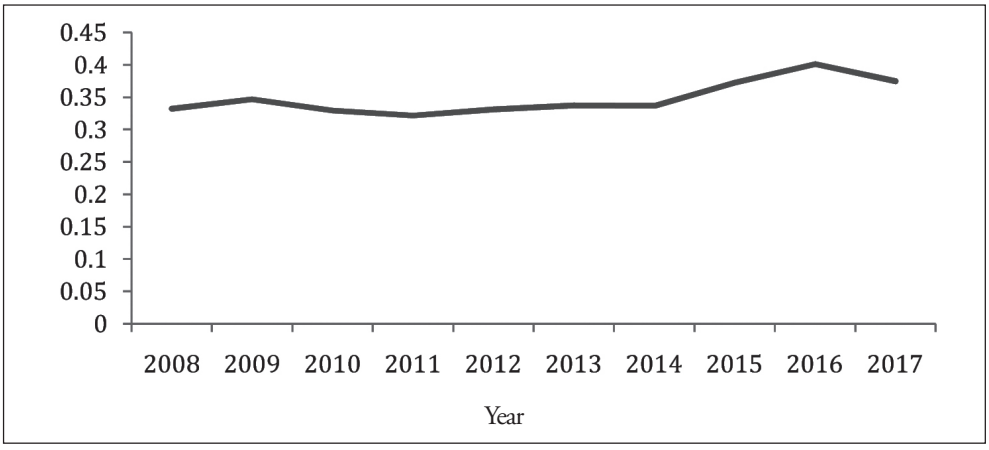
Source : Annual Survey of Industries of various years for net fixed capital stock and for workers.

Graph-5 shows a monotonically increasing trend in the capital-labour ratio for the organised manufacturing sector in India. The ASI data shows that in 2008, it required ₹12.25 lakh (measured in terms of 2008 rupees) of net fixed capital stock to create one employment which rose to ₹18.46 lakh (measured in terms of 2008 rupees) of net fixed capital stock to create one job in 2017. This indicates that manufacturing companies are increasingly adopting capital-intensive technologies.

Graph-6 shows capital-output ratio measured at 2008-09 prices shows cyclical trend. Now if capital-intensive technology is being adopted to replace labour, then there should have been a monotonically rising trend in the capital-output ratio, but it is not the case in the Indian organised manufacturing sector. The Graph shows that the net fixed capital stock to output ratio is 0.33 in 2008 which peaks to around 0.40 in 2016 but again fall to around 0.374 in 2017.

Graph-7 shows that the number of workers employed rose monotonically till 2011 with a slight fall in 2012, after that, it shows an increasing trend. The Graph shows that around 84.96 lakhs workers were employed in 2008, rising to 118 lakhs workers in 2017. The actual manufacturing output at constant prices of 2008-09 registers a monotonically increasing trend, it was around ₹31.325 lakhs crore in 2008, rising to around ₹58.152 lakhs crore in 2017.

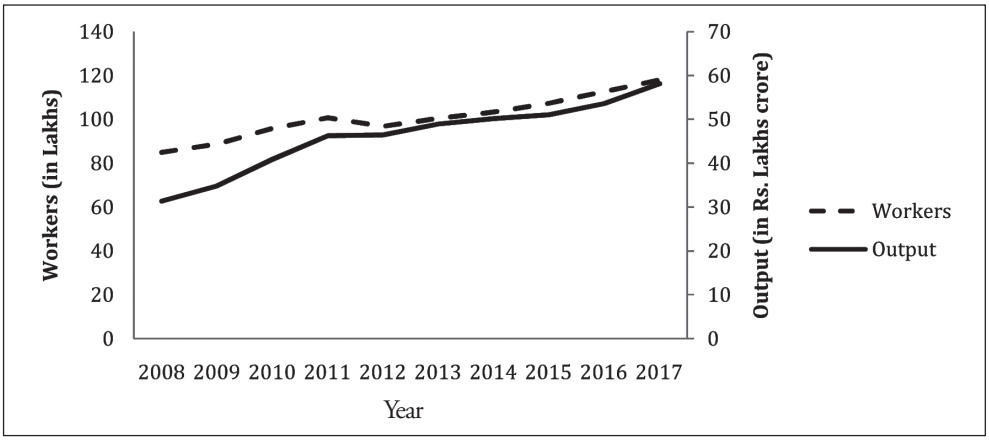
Graph-6 : Net Fixed Capital Stock-Output Ratio (at 2008-09 prices)



Source : Annual survey of Industries for Net Fixed Capital stock and Output.

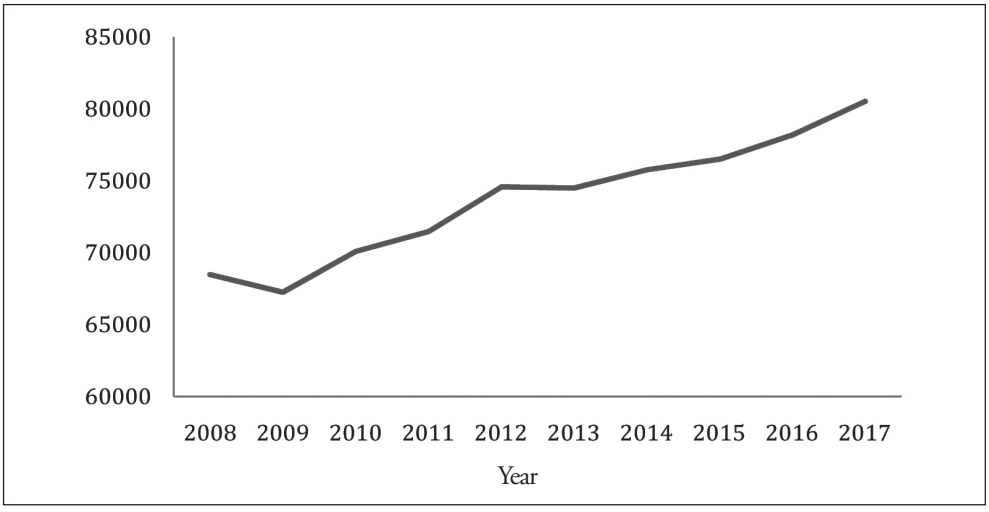
RBI Handbook of Indian Economy for WPI of manufacturing Sector.

Graph-7 : Output and Workers Trends (at 2008-09 prices)



Source : Annual Survey of Industries for output and workers.
RBI Handbook of Indian economy for WPI of manufacturing sector.

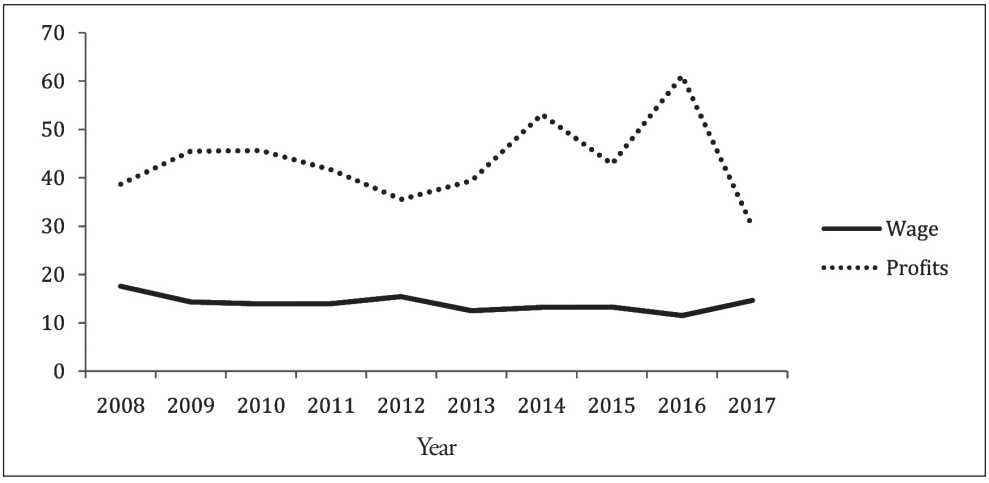
Graph-8 : Average Wage Rate (₹ per worker, at 2008-09 prices)



Source : Annual survey of Industries for wage bill and workers.
RBI Handbook of Indian Economy for Consumer Price Index (CPI) of Industrial worker .

Graph-8 shows monotonic rising trend for the average wage rate measured at 2008-09 prices. The average wage rate fell slightly in 2009, showing an increasing trend since 2012 with a slight fall in 2013, and an upward trend after that. The average wage rate was around ₹68,469 per worker (at 2008-09 prices) in 2008, which increased to around ₹80517.34 per worker (at 2008-09 prices) in 2017.

Graph-9 : Trends in Wage and Profit Share in Net Value Addition (in per cent, at 2008-09 prices)



Source : Annual Survey of Industries for Wage bills, profit and Net Value Addition.

RBI Handbook of Indian Economy for CPI of Industrial worker and WPI of manufacturing sector.

Graph-9 depicts trends in wages and profit share in net value-added (at 2008-09 prices). Here wages are equal to the sum of total emoluments and PF, bonus, and other benefits. The graph depicts the share of wages as a per cent of net value addition which falls cyclically. The share of wages in net value addition was around 17.59 per cent in 2008 which falls to around 14.68 per cent in 2017. In contrast, the share of profit as a percent of net value added shows a cyclically increasing trend until 2016, but depicted a steep fall in 2017. The share of profit in net value added was around 38.65 per cent in 2008, which rose to around 61.09 per cent in 2016 but fell to 29.88 per cent in 2017. The Graph illustrates that the share of profit as a per cent of NVA fell by around 31.21 per cent points from 2016-17 to 2017-18.

One of the problems faced by Indian labour market is that of complexity of labour laws. As labour is a concurrent subject in India,the wide range of labour laws and the nature of complexity makes labour market inflexible. The ministry of labour's decision to implement the four labour codes is a way forward that is supposed to bring flexibility in labour market and reduces complexity in terms of its understanding and implementation. Under the four labour codes, the ministry consolidates 44 central labour laws. The implementation is yet to be announced and there are continuous delays in the formulations

of processes and procedures due to severe waves of Covid-19 pandemic. The amendments in labour laws 2021 are expected to accelerate employment opportunities and output growth in the economy. However, we will have to wait for the code to be formalised and implemented before we are able to make any substantive comments on the effects thereof.

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Appendix

1. The abbreviation used for the variables and the unit in which the variable has been expressed in Table-8.

Table-8 : Variable List with Abbreviation and Unit

Variable	Abbreviation	Unit
Fixed Capital Stock	K	Rs. Lakh
Total Output	Y	Rs. Lakh
Total Inputs Cost	INP	Rs. Lakh
Wages to workers	W	Rs. Lakh
Workers	L	Number
Workers employed through Contractors	CL	Number

2. Estimation of Net Fixed Capital Stock

The net fixed capital stock (NFCS) at 2008 price is estimated by considering 2008-09 as benchmark year. The NFCS for year 2008 requires the derivation of correction factor which equals to ratio of NFCS for 71 industries in year 2008 at current price from ASI to ratio of aggregate NFCS at 2008 price from NAS. After that the NFCS value for 71 industries derived from ASI is enhanced by multiplying by the above correction factor.

The NFCS for year 2009 to 2017 is calculated by using PIAM and estimates obtained from benchmark year. The formula used is as follows

$K_{t+1} = (1-d)K_t + RGI_{t+1}$

Where, d is depreciation rate, K is real NFCS, and RGI is real gross investment.

The RGI is derived by using the formula,

$GI_{t+1} = (F_{t+1} - F_t) + D_{t+1}$

Where, F is NFCS at current price, D is depreciation, and GI is real gross investment at current price.

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New Public Sector Policy through the Lens of Aatmanirbhar Bharat : Some Reflections of the Indian Scenario

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The paper discusses a brief overview of the State-owned Enterprises (SOE)/Public Sector Enterprise (PSE) whose significance has grown in recent years in the context of the post-covid scenario of the global economy.The paper captures the historical context of the journey of PSEs in India since Independence and its transformational changes in the post-liberalisation scenario followed by the recent existential pandemic crisis impacting the socio-economic milieu of the Indian economy. The paper examines the post-Covid policy initiatives clustered around a paradigm framework to carry out a structured privatisation programme under the concept of Aatma Nirbar Bharat Abhiyan in which the government, central to the New Public Sector Policy, has laid out a road map for the government-owned entities in strategic and non-strategic sectors, limiting its presence to a maximum of four PSEs in each designated strategic sector, while PSEs in the non-strategic sectors shall be considered either for privatisation, merger, or making them subsidiaries of other PSEs, or closure. The paper points out that the policy of total privatisation of PSEs, ignoring their current and future scenario of multiple roles in strategic and non-strategic sectors of India's development trajectory is dangerous and disingenuous. The concluding remarks draws together the paper's insights, underscoring the need for a flexible, robust and forward-looking regulatory ecosystem, capable of responding to the myriad situation and look forward to the legacy of a stronger, self-reliant India to enhance the overall wealth of the nation.

Keywords : Public Sector Enterprises, Atma Nirbar Abhiyan,New Public Sector Policy, Strategic and Non-Strategic Sectors, Privatisation, Post-Covid Scenario.

Introduction

State-Owned Enterprises (SOEs)/Public Sector Enterprise (PSEs) have come to occupy a key role in the policies and programmes of many developed and developing countries with a dominant state influence, by fostering economic development and serving as a powerful social tool for policy implementation.

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Globally, SOEs have been among the largest and fastest expanding multinational companies in the past two decades, especially in emerging market economies which contribute approximately 10 per cent of the world's GDP (Peng et al., 2020). They account for over a fifth of the world's largest enterprises as opposed to ten years ago where only one or two SOEs could be found at the top of the league table (OECD, 2018). They are considered to be major players in many economies so much so that they undertake 55 per cent of total infrastructure investment in emerging and developing economies. SOEs are most prevalent in strategic sectors such as energy, minerals, infrastructure, other utilities and, in some countries, financial services. While continuing to have a multinational presence, SOEs across the world, especially in emerging markets, have assets worth $45 trillion which is close to half of global GDP (Gaspar et al. 2019). Globally SOEs also constitute some of the largest companies such as PetroChina, Gazprom and Petrobras feature prominently in the Forbes ranking of top global public companies, while Saudi Aramco is a recent addition – and the world's most valuable company (Fortune, 2019). In China, companies in which the state is a majority shareholder account for about two-thirds of local stock market capitalisation. Other emerging market governments, such as those of India, Russia and Brazil, also hold majority or significant minority stakes in publicly listed companies. In this paper, the author used the term "State Owned Enterprise (SOE)" is used simultaneously with "Public Sector Enterprise (PSE).

Since the late 20th century, the world has largely been reorganised around a set of neoliberal beliefs that (i) the self-organising capability of markets is more efficient than any form of centralised control; (ii) government embodies centralised control, making it inherently inefficient (Chandavarkar, 2020). When governments divested state-owned enterprises in developed economies, especially in the 1980s and 1990s, their objectives were usually to enhance economic efficiency by improving firm performance, to decrease government intervention and increase its revenue, and to introduce competition in monopolized sectors (Vickers & Yarrow, 1988). This new-found faith in privatization has spread to become the global economic phenomenon of the 1990s (Goodman & Loveman, 1991).

However, privatization was often handled poorly, creating wealth for a few and sometimes leading to high prices for essential goods and services. In developing countries, privatization

of SOEs raised concerns and roused sensitivities about foreign ownership of strategic enterprises, and generally proved to be unpopular with the public because of higher infrastructure taris and employment losses. As a consequence, widespread privatization stopped around 2000. Joseph Stiglitz exposed this ideology in scathing terms called privatisation as "*Briberisation*" (Prashant, 2020). In the aftermath of the 2007-2008 global financial crises, with capital markets in turmoil, investors' interests waned and SOE privatization slackened. A global trend emerged that the state must retreat into a minimal role, reducing government ownership of business enterprise, and at one time, SOEs/PSEs were predicted to disappear from the economic landscape of the world, but this trend has since at least been slowed, and perhaps even reversed promoting once again a global resurgence of state ownership. (Megginson, 2017; Mishra & Trivikram, 2019). Today state ownership is reviving in popularity in the wake of the disappointing performance of a number of privatisations as studied by Parker (2017). Subsequent events and analysis demonstrates that SOEs are still significant players in many national economies (Bernier & Reeves, 2018) where SOEs were both politically acceptable and viewed as viable public policy tools to maintain control over key elements of society, the "commanding heights" of state control advocated by Vladimir Lenin (Lin et al., 2020).

The recent industrial rise of China with the continued dominant role of SOEs, long-term development banks, and restrictions on FDI in high-tech industries clearly show merit in carefully targeted industrialisation efforts as examined by Nagaraj (2019). The strategic establishments were startled when the Fortune Global 500 list 2020 revealed that Chinese large firms had overtaken US-based firms. China today has 124 firms in the Fortune list, of which 95 are SOEs, compared to 118 from the US. Many so-called private Chinese firms like ZTE and Lenovo are known to be controlled by SOEs (Shankar & Khanna, 2021). On the flip side, China uses SOEs as tools of economic coercion to dredge, construct, and militarise the artificial island fortresses in the South China Sea, violating the exclusive economic zones of Southeast Asian states, threatening the existing order that has given Asia decades of prosperity (The Week, 2020 July, 15). The latest list of the 25 largest arms companies in the world released by the Stockholm International Peace Research Institute prominently features four Chinese state-owned entities (ToI, 2020).

Public Sector Enterprise : The Post-Independence Indian Scenario

Since Public Sector Enterprises (PSEs) are viewed as instruments of national policy, soon after Independence, India adopted the goal of establishing a *'Socialistic Pattern of Society'* with a progressive expansion of the public sector through increased investment in heavy industry and irrigation, and acquired through nationalisation, especially of financial institutions as a key instrument of achieving the socio-economic goals. In this way, the universe of PSEs in India for historical reasons, sought to be enlarged in the Industrial Policy Resolution (1956) entered many activities that continue serving public purpose with its commendable presence and significant contribution in capital intensive strategic sectors. In addition to physical assets, the Indian PSEs, in the last seven decades,despite their declining weight, lead the major strategic sectors contributing around 13 per cent to Indian GDP in terms of turnover (Sobti, 2020). Arpita et.al. (2020) in their study highlights that India is among the top eight countries in the world with many PSEs play a key role in meeting the country's geo-strategic interests and export targets.

On the flip side, PSEs have inefficiencies and improper governance built into their functioning, lack competitiveness due to conflicting objectives, excessive government interference, shortage of working capital, surplus manpower and obsolete plant and machinery, lack of managerial and commercial autonomy and the associated nemesis of the four Cs–CBI, CVC, C&AG and Courts impacting directly and indirectly the speed of decision-making alongside controlled pricing mechanism which prevents them from being as cost-competitive as the private sectors (Chattopadhyay, 2011). With a view to protecting jobs, PSEs were nationalised in the Seventies and Eighties by taking over private sector enterprises which were facing operational losses. Evidently, the answers to the relatively weaker financial fundamentals of PSEs include 'public sector inefficiency' is that the government being the dominant shareholder, is also a customer of these PSEs. This dichotomy of the government's role puts at risk the efficient use of capital by PSEs, as well as the longevity of their earnings, which reflects in terms of insignificant multiples. Though the PSEs under the governance framework are given day-to-day functional "autonomy" yet they are indirectly secured to the apron strings of their respective Administrative Ministries. It is quite the norm in India to slam public sector enterprises for their lack of drive, vision and imaginative leadership, while showering private sector firms with accolades

for these very same qualities (Bhattacharjee, 2020).

PSEs and the Post-Liberalisation Scenario

Following the balance of payment crisis in the early 1990s, largely driven by a fiscal squeeze,the shift in India's public policy from an inward-looking development strategy to a globalized market-based approach resulted in paradigm changes implementing a series of reforms under the New Industrial Policy (1991) to encourage private enterprise combined with partial motivation of efficiency considerations to exit Public Sector Enterprises (PSEs). Central to the policy, PSEs classified as 'strategic' and 'non-strategic' sectors, have undergone a transformational change, cutting down their stake by the government over the years, as the number of industries reserved for the public sector was reduced in consistency with the policy of liberalization, following the government's exit of its ownership and management of PSEs in low priority sectors like hotels, tourism, confectionery, and pharma, etc., which were barely making money to justify the capital invested in them. While this may also be a question of intent of the State's increasing unwillingness to invest directly in areas it is committed to, it also indicates a deliberate move to vacate space in favour of private interests, best illustrated by the facile slogan : *The government has no business to be in business.*

Policy Approach to Disinvestment/Privatisation

Disinvestment was initiated mainly through two calibrated policy approaches : partial disinvestment and strategic sales. The Government of India initially began the process by partially disinvesting the shares through the preferred method of sale of minority stakes in select PSEs. This continued from 1991 to 2000. Subsequently a separate full-fledged Ministry of Disinvestment headed by the cabinet minister had gone ahead with privatization. Modern Foods was the first PSE strategically sold[1] in the year 2000 and every single disinvestment the government managed to sell PSEs through the strategic sale route in which blocks of shares along with the management control, passed on to strategic partners may be seen in Table-1. Incidentally, the Finance Minister[2] for the first time in the Budget 2000-2001 speech had used the word "*Privatisation*" not stated as a formal policy but used in that sense instead of "Disinvestment."

The privatisation processes witnessed stagnation post-2004, in the face of stiff resistance from the opposition and subsequently the entire disinvestment

Table-1 : Strategic Sales between the Years 1999 – 2004

Name of the PSE	Year	Buyer
Modern Food Industries	1999-2000	Hindustan Unilever Ltd.
Bharat Aluminum Company	2001-2001	Vedanta Group
Hindustan Teleprinter Communications	2001-2002	Himachal Futuristic
Computer Maintenance Corporation	2001-2002	Tata Consultancy Services
Indo-Burma Petroleum Company	2001-2002	Indian Oil Corporation
Videsh Sanchar Nigam Ltd.	2001 -2002	Tata Communications
Paradeep Phosphates	2001-2002	Zuari Maroc Phosphates
Hindustan Zinc	2002-2003	Vedanta Group
Indian Petro Chemicals Corporation	2002-2003	Reliance Industries Ltd.

Note : *Government of India released ₹367.95 crores from put option for MFIL and Hindustan Zinc Ltd., during 2002-2003, 2003-2004, Disinvestment of LJMC and 19 hotels of ITDC in 2000-2003.*

Source : Government of India.

proceeds between 2005 and 2014 came from the sale of the government's minority shareholding in PSEs. But in a bid to boost disinvestment receipts, the government experimented with different combinations and permutations of sales of its shares in PSEs which included Initial Public Offer (IPO), Follow on Public Offer (FPO), Offer for Sale of Shares (OFS) in PSEs to their employees, buyback of shares, and floatation of the PSE Exchange-Traded Fund (ETF). Between 2015-16 and 2019-20, the government raised the maximum disinvestment receipts from ETFs.

Removal of Legislative Barriers towards Privatisation

In parallel with the above trends, successive governments over a period have removed legislative barriers congesting the statute books and promoted ease of governance according to the study undertaken by Bimal (2020). The government repealed a number of other nationalisation laws of several PSEs formed as statutory corporations justifying the government does not require the approval of Parliament to sell its shareholding with a green signal to go ahead with privatisation of these government companies, as the conditions imposed by the Supreme Court's order have been fulfilled. These included laws that transferred the ownership of companies to the central government, which later formed as Bharat Petroleum Corporation Ltd, Hindustan Petroleum Corporation Ltd

and Oil India Ltd. Between the period 2014 and 2019, Parliament has repealed around 1,200 laws under the six Repealing and Amending Acts according to Bibek (2017) and Ramanujam Committee (2014).

Covid-19 and its Global Spread

The spread of Covid-19, which occurred in the first half of 2020, posed unprecedented challenge right from government to the common man worldwide. Since the virus spreads so quickly around the globe, most countries caught unprepared to the speed and scale of impacts from the Covid-19 (Jongeun, 2020). Giliberto et al. (2020) observed that pandemics are a difficult policy problem to conceptualize and structure, as their effects are paradoxical, causing a supply shock and a demand shock. In response to Covid-19, many countries with circumstantial trends have opted to support SOEs across a variety of sectors to continue the delivery of essential goods and services (Christine & Georgiana, 2020) has brought to light the constructive and essential role and relevance of the State-Owned Enterprises across the world.

In UK the pandemic held a silver lining for Britain to come out with a White Paper known as the Williams-Shapps Plan, considered the biggest shake-up of the UK railway industry with sweeping rail reforms, to focus on fixing the worst distortions of rail privatization while driving improvements and innovation according to Topham (2021) and Raphael (2021).

After more than a decade now, the government contemplated of re-owning and re-opening the once privatized institutions due to the ever-changing needs in the economy (Kakembo, 2019). Big government staged a comeback as the social contract between society and the state got rewritten where free-market ideas had reigned for decades, safety nets had to be patched up as observed by Curran et. al. (2020). And SOEs today are at the centre of key transformations in contemporary economies, as they have been in previous decades.

Impact of Covid-19 on PSEs in India

The Covid-19 pandemic from China began as a fast-moving, severe, transnational crisis unleashed a dramatic economic collapse and humanitarian catastrophe the world over and has struck a body blow to government finances all over the world and India is no exception to this devastating onslaught. (Trivikram, K. & Srinivasamurthy, S. (2021); Roberts, D. (2020); Honigsbaum, M. (2020). Amidst the Covid-19

crisis, the government gave a call for a self-reliant India movement, and announced a series of calibrated and sequential steps of stimulus-cum-reforms package to deal with the impact of the lockdown, for the immediate short-term, and the medium-term, alongside a set of long-pending reforms in agriculture, labour and industry to take the economy back to the growth path.

Paradoxically, by invoking phrases like 'strategic' or 'priority' industry, or appealing to 'development objectives, Niti Aayog has been mandated to identify and recommend PSEs which are not in the 'priority sector' – for strategic disinvestment, based on criteria of the national security, sovereign functions at an arm's length, market imperfections and public purpose. The government has used the Covid-19 pandemic crisis to plough through long pending, deep-rooted structural reforms with the announcement of the mega privatisation drive under the overarching Atma Nirbhar Bharat Abhiyan package to achieve a gradual reduction in import dependence and creation of a self-reliant India.

AtmaNirbhar Bharat Abhiyan

The concept of 'Atma Nirbhar Bharat Abhiyan'[3] (Self-Reliant India) announced by the government (Lok Sabha, 2020), in five tranches is basically to spur growth to make India a more competitive economy through a mix of liquidity measures, funding support, regulatory changes and structural reforms to build a self-reliant India on the tenet of 'Make in India' concept. The core initiative, however, broadly rests on the five essential pillars in terms of economy, infrastructure, tech-driven system, vibrant demography and demand, integrated to a distinct mission focus on land, labour, liquidity and law.

It will be seen from the accompanying Table-2 that a major part of the neoliberal policy response of the government has notified the structural reforms (PIB, 2020, May 12) listing out private participation in coal and commercialisation of the mining sector to bring competitiveness and a level-playing field between PSEs and private players, relaxations in FDI norms via an automatic route from 49 per cent to 74 per cent in defence production and even suggesting private involvement in space exploration, space research, particularly in planetary exploration, privatisation of airports, easing usage of the Indian air space to reduce air travel cost, privatizing discoms in metros to streamline their functions for better accountability, atomic energy sector which include privatising public sector enterprises that could have played an important role in economic revival; opening up banking and retail trade to foreign investors.

Table-2 : Structural Reforms and 'Aatmanirbhar Bharat Abhiyan

	Coal Sector • **Introduction of Commercial Mining in Coal Sector** ➢ Competition, transparency and private sector participation to be promoted. ➢ Entry norms will be liberalized; 50 blocks to be offered immediately. ➢ Rs.50,000 crore to be spent on building evacuation infrastructure. ➢ A revenue sharing mechanism instead of regime of fixed Rupee/tonne. Any party can bid for a coal block and sell in the open market. ➢ Exploration-cum-production regime for partially explored blocks against earlier provision of auction of fully explored coal blocks allowing private sector participation in exploration. ➢ Production earlier than scheduled will be incentivized through rebate in revenue-share. • **Diversified Opportunities in Coal Sector** ➢ Coal Gasification / Liquefaction will be incentivized through rebate in revenue share entailing lower environment impact and facilitate India in switching to a gas-based economy. • **Liberalised Regime in Coal Sector** ➢ Coal Bed Methane (CBM) extraction rights will be auctioned from Coal India Ltd. (CIL) coal mines. ➢ Ease of doing business measures, such as mining plan simplification, will be taken to facilitate automatic 40 per cent increase in annual production. ➢ Concessions in commercial terms given to CIL's consumers (relief worth ₹.5,000 crore offered). ➢ Reserve price in auctions for non-power consumers reduced, credit terms eased, and lifting period has been enhanced.
	• **Defence Production** ➢ A list of weapons/platforms for ban on import to be notified with timelines. ➢ Realistic setting of General Staff Qualitative Requirements (GSQRs) of weapons/ platforms and overhauling Trial and Testing procedures.

(Contd...)

	➢ Time-bound procurement process and faster decision-making. ➢ Corporatisation of Ordinance Factory Board, Stock Market Listing. ➢ FDI limit raised in defence manufacturing to 74 per cent from the present 49 per cent.
	• **Space Activities** ➢ Level playing field for private companies in satellites, launches and space-based services. ➢ Private sector to be allowed to use ISRO facilities and other relevant assets.
	• **Airspace/Airports** ➢ Restrictions on utilisation of the Indian Air Space will be eased enabling civilian flying to become more efficient. ➢ Optimal utilization of airspace; reduction in fuel use, time. ➢ Will bring a total benefit of about ₹.1,000 crore per year. ➢ Six airports identified for 2nd round of bidding for operation and maintenance on Public-Private Partnership (PPP) basis. ➢ Additional investment by private players in 12 airports in 1st and 2nd rounds is expected to bring around ₹.13,000 crore. ➢ Another 6 airports will be put out for the third round of bidding.
	• **Social Infrastructure** ➢ Government will enhance the quantum of viability gap funding up to 30 per cent each of total project cost. ➢ Total outlay : ₹.8,100 crore.
	• **Atomic Energy & Power Sector** ➢ Establish research reactor in PPP mode for production of medical isotopes-promote welfare of humanity through affordable treatment for cancer and other diseases. ➢ Tariff policy reform, Direct Benefit Transfer for subsidy, smart prepaid meters, Time-bound grant of open access. ➢ Discoms to be penalised for load shedding. ➢ Privatisation of distribution in Union Territories. ➢ Power departments/utilities in Union Territories will be privatized.

Source : Ministry of Finance, Government, New Delhi.

New Public Sector Policy-2021

The much-awaited New Public Sector Policy (NPSP) on the strategy to privatise PSEs was formally approved by the Union Cabinet of the Government of India on 27-Jan-2021, much ahead of the Union Budget-2021.

Scope of the New Pubic Sector Policy

The scope of the NPSP is limited to the existing Central Public Sector Enterprises, Public Sector Banks and Public Sector Insurance Companies as per the formal notification of the Government of India (2021, Feb 04). The policy, however, does not apply to certain classes of PSEs such as not-for-profit companies or PSEs providing support to vulnerable groups,or having developmental/promotional roles, etc.

Key Features of the Policy

The public sector enterprises are being classified as Strategic and Non-Strategic sectors, as under :

A. Strategic Sectors

The strategic sectors[3] have been delineated based on the criteria of national security, energy security, critical infrastructure, provision of financial services and availability of important minerals. Based on this, the following sectors are classified as Strategic Sectors :

- Atomic Energy, Space and Defence;
- Transport and Telecommunication;
- Power, Petroleum, Coal and other Minerals;
- Banking, Insurance and Financial Services.

Being a coherent part of the Aatmanirbhar Bharat Abhiyaan package announced in May 2020 where all sectors would be opened for private sector participation, the contours of the new PSE policy laid out a road map for the presence of government-owned entities in strategic and non-strategic sectors, in which "bare minimum" number of existing PSEs restricting it one to four in strategic sectors will be retained.

B. Non-Strategic Sectors

PSEs in other segments of non-strategic sectors shall be privatised if feasible, or rationalised through mergers or made a subsidiary of another PSE or brought under a holding company structure or outright closed down.

This is the first time since the Industrial Policy Resolution of 1956 that the government has notified it will not have PSEs in the non-strategic sector as pointed out by Verma (2020).

The policy, however, does not apply to certain classes of PSEs, which include in the nature of development and regulatory authorities, autonomous organisations, development financing or refinancing institutions. Major port trusts and the Airport Authority of India, set up under Acts of Parliament, would not fall within its ambit.

C. Classes of PSEs Out of the Scope of the New PSE Policy

The classes of PSEs which would be out of the scope of the new PSE policy such as not-for-profit companies or PSEs providing support to the vulnerable sections through financing of SCs, STs, minorities, backward classes and Safaikarmacharis, etc., or manufacturing aids and appliances for Divyangs or those assisting farmers in mainly getting access to seeds, promoting innovation in agriculture, or procurement and distribution of food for public distribution system would be uncovered under the policy.

The policy would not extend to PSEs involved in security printing and minting, or maintaining critical data having a bearing on the national security. Also departments of the government, like Railways and Posts, that undertake commercial operations with a development mandate would not be within the scope of the PSE policy.

Merger of Department of Public Enterprise with Ministry of Finance

The government felt that there was a lack of co-ordination among the various ministries and departments that monitor PSEs in different sectors. With a view to provide a better control over public sector enterprises the government reallocated the Department of Public Enterprise[4] (DPE), the nodal agency for all public sector enterprises from the Ministry of Heavy Industries and Public Enterprises and merged with the Ministry of Finance (MoF). The rationale behind shifting of DPE to the MoF, is to facilitate efficient monitoring of the capital expenditure, asset monetisation and financial health of the PSEs attached to the central government. With this addition, the MoF will presently include six departments while DPE's hitherto parent ministry, the Ministry of Heavy Industries and Public Enterprises, will presently be called the Ministry of Heavy Industries.

Private Sector Specialist as the Head of the PESB

In line with this development the government as part of a comprehensive overhaul of the appointments process for PSEs, has opted to appoint a private sector representative to head the Public Enterprises Selection Board (PESB).

The Appointments Committee of the Cabinet of the Government of India has approved Mrs.Mallika Srinivasan[5] as the Chairperson of PESB for a period of three years from the date of assumption of charge, or until the attainment of the age of 65 years. This is the first time a private sector specialist has been appointed as the head of the PESB, responsible for appointment of top management posts in the Central Public Sector Enterprises.

Corporatisation of Departmental Undertakings

The Defence Production and Export Promotion Policy, 2020 (PIB, 2020, August 3) aims to give a thrust to the defence production capacity of the country, reduce dependence on imports, and promote exports for self-reliance in defence. The policy notes that ordnance factories and Defence Public Sector Enterprises (DPSEs) need to be reformed for the future so that they work in tandem with the private industry. It proposes that disinvestment of DPSEs will be pursued and ordnance factories will be corporatised to make them competitive.

While several committees, most prominently the Vijay Kelkar Committee recommended "corporatising" the Ordnance Factories (OFs) and the transition to a corporate structure has finally been catalyzed by the recommendations of an Empowered Group of Ministers (EGoM). The fundamental assumption that underpins the OFB's corporatisation is that decision-making and strategising formulated in a corporate boardroom to improve growth potential and innovation would be inherently superior to the management rather than emerge from a MoD's bureaucrat's office.

The Ordnance Factory Board (OFB) which manufactures ammunition and explosives, armoured vehicles, weapons and equipment, metals and steel, etc., a wholly-owned department of the Ministry of Defense has ceased to exist from October 1, 2021, onwards, a moment in history, bringing down the curtains of a 234-year-old chapter that links back with British colonial rule in India. The OFB has a chain of 41 Ordnance Factories, nine training institutes, three Regional marketing centers and four Regional Controllers of Safety has been carved out into seven Defense Public Sector Enterprises (DPSE) which will operate in addition to the nine areas that have hitherto existed.

In tune with the EGoM's corporatisation plan, it may be seen from Table-3 that the 12 major OFBs that produce ammunition and explosives will be grouped into a single PSE called Munitions India Limited. Five more OFBs that manufacture vehicles will be grouped into a PSE called Armoured

Table-3 : Classified List of New Defence Public Sector Enterprises and their Functions

Name of the New Defence PSEs	Function
Munitions India Limited	Manufacturing ammunition and explosives
Armoured Vehicles Nigam Limited	Manufacturing vehicles
Advanced Weapons and Equipment India Limited	Manufacturing weapons and equipment
Troop Comforts Limited	Manufacturing troop comfort items
Yantra India Limited	Manufacturing military grade components and ancillary products
India Optel Limited	Manufacturing up to electronic items (such as equipment for tanks)
Gliders India Limited	Manufacturing parachutes

Source : Department of Defence Production, Ministry of Defence, Government of India.

Vehicles Nigam Limited. Another five that manufacture weapons and equipment will combine to form Advanced Weapons and Equipment India Limited. Eight more OFBs that manufacture metals and steels will combine to form Yantra India Limited. The remaining 11 OFs will form India Optel Limited, Gliders India Limited and Troop Comforts Limited.

Rationalisation of the Government Bodies

As a part of the proposals on rationalisation of government bodies and bolstering the Railways focus on its core competence of running and maintaining the railway service, the Cabinet Secretariat of the Government of India on the basis of the report of Sanyal (2021) has asked the Ministry of Railways to act upon the merger of Rail Vikas Nigam Ltd into Indian Railway Construction Ltd.(IRCON), of Rail Tel into Indian Railway Catering and Tourism Corporation (IRCTC), and the takeover of Braithwaite & Co Ltd by RITES. Highlighting the overlap between Rail Tel, a large telecom infra provider through optic fibre networks along railway tracks, IRCTC, a miniratna, whose core activity is internet ticketing, and Centre for Railway Information Systems (CRIS), an autonomous society that develops software for passenger ticketing, freight invoicing, passenger train operations, etc., the report recommended that CRIS wind

up after handing over it's work to IRCTC, and then Rail Tel be merged with IRCTC. The report called for setting up a new public sector enterprise to hold the three coach factories in Chennai, Kapurthala and Rae-Bareli, locomotive units in Chittaranjan, Varanasi and Patiala, and two rail wheel units in Yelahanka (Bengaluru) and Bela in Bihar. All the assets may be transferred to the respective PSEs and employees are deployed to the proposed enterprise in a phased manner.

Banks Under Consolidation

As part of the consolidation drive, the government has brought down the number of public sector banks from 27 to 12 in three years between 2017 and 2020 via merger is an important postive step (Panagaria, 2020). The logic behind the consolidation drive is to create conglomerates rooted in the Indian economy that are of global scale and competitiveness, innovative and with financial muscle to break into new markets (Gopal, 2021). Under a renewed push, the government propose to amend two banking laws namely Banking Companies (Acquisition & Transfer of Undertakings) Acts, 1970 and 1980, and the Banking Regulation Act, 1949, to pave the way for privatisation of two public sector banks, as announced in the Union Budget in February, 2021. A move has been afoot to iron out various regulatory and administrative issues to place the proposal before the Group of Ministers on Disinvestment or Alternative Mechanism (AM) for approval. In line with these developments, the Ministry of Finance has lifted the ban on the use of private banks for the conduct of government-related banking transactions like taxes, pensions, and receipts and disbursements under government schemes as per the notification issued by the Government of India (2021, Feb 24). The government, however, continues to hold a majority stake in India's largest lender, State Bank of India, seen as a 'strategic bank' for implementing the socio-economic policies of the government.

Insurance Sector

As a part of the divestment strategy for the financial sector, the government has decided to go for a Initial Public Offering (IPO) of Life Insurance Corporation of India (LIC) during the financial year beginning April 2021. To facilitate the listing of LIC, the Finance Bill[6] earlier this year 2021 made amendments to the Life Insurance Corporation Act, 1956, allowing the central government to reduce its shareholding up to 51 per cent of the equity but not below 75 per cent in the first five years (Government of India, 2021). LIC has helped the government meet its

disinvestment targets, and instances are not wanting that LIC has often stepped into the market to fulfill the agenda of many governments by investing in weak PSEs and losing money. On an average, LIC invests ₹.55,000 crore to ₹.65,000 crore in stock markets every year (The Indian Express, 2020) and emerges as the largest investor in Indian stocks in supporting the markets by buying shares during major sell-offs and also shares of PSEs during divestment at a time when investor participation has been weak. It had invested heavily in IPOs and follow-on offers of companies such as ONGC and was also called in bailing out IDBI Bank, which had been severely hit because of bad loans in 2018. It is pertinent to point out that the Insurance (Amendment) Bill, 2021 which amended the Insurance Act, 1938, has increased the limit on foreign investment in an Indian insurance company from 49 per cent to 74 per cent besides removing restrictions on ownership and control. Earlier, the Act allowed foreign investors to hold up to 49 per cent of capital in the Indian insurance company, which must be owned and controlled by an Indian entity.

Given the pandemic-induced disruptions, the government put on hold the merger of three state-owned general insurance companies—National Insurance Company Ltd, Oriental Insurance Company, and United India Insurance placing a higher onus on State-owned insurance firms who have that financial ability than other entities in the industry to offer "public good"/ "social good" more than just profitability (Srinath, 2020). Pertinently the General Insurance Business (Nationalisation) Amendment Bill, 2021, got parliamentary assent to allow privatisation of state-run general insurance companies, sought to remove the requirement that the union government should hold not less than 51 per cent of the equity capital in the four state-owned general insurance companies.

PSEs : The Nations Shock Absorber

The Government of India (GoI), being the dominant and a diversified business owner (shareholder) in the country, presumably driven by the need to boost public investments to help the economy recover from the impact of Covid has committed the PSEs with a dictum 'Spend or let us spend,' appears to be GoI's directive to PSEs the choice to increase capital spending or provide a substantial dividend payout (see Table-4). The government is of the view that since economic activity is low, PSEs are

not spending on capital expenditure as much as they would have anticipated, and hence are sitting on cash reserves, which can be used to pay dividends and buy back shares. The idea is to increase capital expenditure in order to strengthen the country's industrial growth that has slowed down in the Covid-19 period. And, therefore, the government has emphasised that capital expenditure by public sector enterprises would be a critical driver of economic growth and exhorted PSEs under coal and petroleum and natural gas to achieve by December, 2020, 75 per cent of their planned capital expenditure (capex) target of ₹4.13 lakh crore as per the Budget 2020-21, as the government look forward to maintaining the pace of capital and infrastructure projects (The Hindu, 2020, Oct, 25). In line with this development, the government has grown increasingly dependent on the funds raised through PSEs and it has asked seven PSEs under five key ministries to spend 50 per cent of their capital outlay for the year before October, 2020.

Share Buybacks

In addition to substantial dividend pay outs every year, the government being the largest shareholder in these PSEs has hit upon a novel way of revamping its strategy of disinvestment, by encouraging buy backs wherever PSEs have extra

Table-4 : Top Ten Dividend Payers to Government between FY-2015- and FY-2020

S.No.	Name of the PSE	Dividend to the Government (₹ in crores)
1.	Coal India Ltd.,	52,628
2.	ONGC Ltd.,	31,266
3.	Indian Oil Corporation Ltd.,	38,986
4.	NTPC Ltd.,	12776
5.	Bharat Petroleum Ltd.,	12,145
6.	NMDC Ltd.,	10,749
7.	Power Grid Corporation of India Ltd.,	8,504
8.	R E C Ltd.,	6,157
9.	Power Finance Corporation Ltd.,	5,756
10.	Hindustan Petroleum Corporation Ltd.,	5,565

Source : Company Annual Reports, Department of Public Enterprise, Government of India.

cash available to bridge its fiscal deficit and meet their capital expenditure requirements. Some examples include, Hindustan Petroleum's sale to ONGC in 2017-18 and Power Finance Corporation's acquisition of Rural Electrification Corporation in 2018-19. NTPC acquired the government's stakes in hydropower company THDC (India) Ltd and North Eastern Electric Power Corporation. In all these transactions where the government sold more than 51 per cent of its shareholding in PSEs, along with transfer of management control, have involved another PSE picking up the government's stake, the government has imposed a merger of two PSEs or the acquisition of one by another has moved the ownership from one government owned company to another government owned company. It planned to ask among the PSEs-Coal India Ltd., NMDC Ltd., MOIL Ltd., KIOCL Ltd., and Engineers India Ltd. to repurchase shares to help the government shore up its finances amid the coronavirus pandemic, to benefit from the transactions by tendering the equity it holds in return for cash according to Bloomberg (2020). This modus operandi in terms of inter-transactions and inter-transfers facilitated the cash reserves of the buying PSEs to the government, without diluting its effective control over the selling PSEs may be seen in Table-5. In this context, the Comptroller and Auditor General has pointed out that such disinvestment only results in the transfer of resources that are in the public sector to the government. This was not the idea behind disinvestment (Business Standard, 2020).

Table-5 : PSE's Buyback Filling the Government's Coffer

Buyback Share to Government (in ₹ crores)	
Year	**Amount in ₹ in crores)**
2015-2016	4,483
2016-2017	19,027
2017-2018	5,341
2018-2019	10,682
2019-2020	822

Source : BSE, Company Annual Report, Department of Public Enterprise.

Asset Monetisation and PSEs

The government has been exploring various options to raise resources and one such initiative is the ₹6-trillion National Monetisation Pipeline (NMP). The NMP will serve as a roadmap for asset monetisation of various brownfield infrastructure assets across sectors including roads, railways, aviation, power, oil and gas, warehousing, real estate investment trusts, and telecom towers, among others on the block for private sector participation. NITI Aayog- the policy making body released the plan for monetisation of assets of the central government and public sector enterprises. The plan includes awarding 150 passenger trains to private players; divestment of the equity stake of the Airports Authority of India in the joint ventures that operate the Delhi, Mumbai, Bangalore and Hyderabad airports; and leasing out stadiums such as the Jawaharlal Nehru Stadium in the national capital.

The assets shortlisted came under the purview of eight Central ministries who have been given a target of ₹2.5 trillion for monetising their assets over the next three years, starting 2021-22. A Core Group of Secretaries for Asset Monetisation (Government of India 2019, April 29) discussed the shortlist of assets identified for monetisation in 2021-22. State governments are being nudged by the Centre and Niti Aayog to monetise assets and may be given a target of ₹.3 trillion over 4 to 5 years. The government has developed a dashboard to monitor the real-time progress of its asset monetization pipeline and provide visibility to investors.

MoU and the PSEs

While the central government has been planning asset sale for over two years and tasked PSEs under the purview of their respective Administrative Ministries to identify and share information on the assets to be included in the pipeline, but PSEs have been unsuccessful to monetise their non-core assets and realise the value of idle assets over the years due to pending litigation and lease terms, despite a constant nudge by the government.

As part of the MoUs signed between the Union Government and the PSEs, the usual setting of annual targets based on which PSEs performance is reviewed on certain financial and non-financial parameters that generally includes profit after tax, production and capital expenditure, among others. Central to this policy, the government has asked PSEs

to share a plan for asset monetisationas a key area of focus which led to the inclusion a part of the memorandum of understanding that PSEs sign with the government.

Pharmaceuticals and the Role of PSEs

The pandemic has brought to the fore the limits and inevitability of globalization. China's unrivalled leverage in global supply chains and involvement in weaponising trade have induced a revived global discussion on constituents of national security and how to protect them. The Covid-19 crisis is a wake-up call for India following its domestic pharma industry experiencing critical shortages of Active Pharmaceutical Ingredients (API), the key bulk drug that allows medicines their therapeutic value, which massively depends on imports from China. The fact is that PSEs like Indian Drugs and Pharmaceuticals Ltd (IDPL) and Hindustan Antibiotics Ltd (HAL), which once had substantial competitive advantage in those very precious materials, acknowledged much of India's API prerequisites well into the 1990s, are now sick, financially moribund and hardly operational. But, then, policy apathy, indecisiveness and the sheer lack of investments, together with China's opaque export drive, led to IDPL and HAL becoming wholly non-competitive over the years. Nonetheless, it would make strategic sense to revive them, as India can leverage its existing strengths in the pharmaceutical industry and its scientific and technical manpower to augment API output, and fulfill the nation's requirements. Sujan (2020) opines that if China is a "factory to the world", India has the potential to be a "pharmacy to the world".

Withdrawal of Budgetary and Policy Support

The government's refusal to support PSEs at critical moments has left wide gaps in key industrial capabilities. With the collapse of HMT, India is forced to import 80 per cent of its machine tools, the bedrock of manufacturing. The undermining of the pharmaceutical PSEs like IDPL and HAL, once India's pride, makes it dependent on active ingredients from China. The government's reluctance to support BHEL has deluged the Indian power sector with Chinese equipment. Moreover, India is largely absent in

emerging technologies like solar wafers, computer chips or EV batteries. India needs to emulate China in establishing new PSEs in strategic and emerging industries, which require patient capital and greater risk (Shankar & Khanna, 2021).

Efficiency and Sustainability Issues

All said and done that privatisation is driven by one or more objectives. Increasing efficiency in the economy; raising revenues for the government and bridging the fiscal deficit; promoting the development of the capital market; increasing private initiative in the economy in general. The last two objectives have been substantially met in the decades following economic liberalisation in 1991. It is the first two objectives that are relevant to the Indian economy today. (Ram Mohan, 2020, Oct 28.). India got good growth in the 1991-2011 period, and after that private investment has faltered. As per the CMIE Capex database which chronicles investment projects, the peak value of the stock of private "under implementation" projects expressed in 2021 rupees was near ₹.90 trillion in 2011/12. There has been a decline in the following years of about ₹.50 trillion. On average, a decline of ₹.5 trillion or about $70 billion per year was pointed out by Shah (2021). While the crisis is serious for all, it is especially a challenge for countries that have ignored those needed investments in what is called the 'dynamic capabilities of the public sector' (Kattel & Mazzucato, 2018).

Recent shifts in the macroeconomic landscape from the impact of the second wave of the Covid-19 pandemic on the back of targeted fiscal relief, mone-tary policy and a rapid vaccination drive have brightened the outlook, with GDP within striking distance of attaining positive territory and inflation closer to the target. If these trends sustain, policy space could open up to further support the economic recovery. The need to kick start investment is acquiring urgency to secure a durable turnaround and a sustainable growth trajectory along with an increasing public investment, particularly in the current environment, cannot be overstated.

The government's own fresh answer to the problem of private investment is to depend on a revival in the banking sector with the construction of a bad bank; second, incentivising private capital flows into frontier sectors and

infrastructure through regulatory changes and the creation of a new blended finance development institution; and third, through "asset monetisation" of existing state resources.

However, large-scale asset monetisation such as land and highways may not be easy for the government, as land and highways will certainly be far more complex than selling a minority or majority stake in state-run firms because of the poor quality of information and disclosure standards from the state governments who may either object to the Centre's plan to monetise such assets or demand their fair share in the proceeds.

Even otherwise resources obtained through disinvestment and other means of asset monetisation should solely be used for asset creation. Using it to fund current government expenditure, as has been the case over the years, will impede the purpose for which it is intended and increase longer-term fiscal problems.

Concluding Remarks

As the government powers ahead with its elaborate plans for privatisation of large public enterprises, potential monopolies and concentration of power in the private sector with state support will erode trust and growth. The Covid-19 crisis is a wake-up call which has busted the myth of the free market and its capacity to take care of problems on its own strength. The former planning commission member Maira (2020) remarked that capitalist corporations must learn to gain a larger 'share of citizens' hearts' if they want to be trusted, not just a larger 'share of consumers' wallets'. The issue is not the ownership, but how the owner behaves. The policy of total privatisation of PSEs, ignoring their current and future scenario of multiple roles in strategic and non-strategic sectors, is dangerous and disingenuous. The gains of privatization come with a certain cost such as increase in price level, artificial shortage of resources, formation of like-minded cartel, job insecurity, social security and safety net, corporate social responsibility and protection of stakeholder's rights. The social welfare element is affected because of their profit maximizing behaviour and looking for only affordable customers rather than serving the society at large.

The public at large will trust the private sector only when they are convinced that the system is not gamed in favour of a privileged few and the legal framework does not encourage rent-seeking. It does not make any sense to privatise

all PSEs. If recent experience is of any guide relate to "anti-monopoly suppression" and "prevention of disorderly capital expansion" by the Chinese government towards its corporate sectors has to be seen in the largest context of regulatory scrutiny against immensely successful multinational high-tech firms like Alibaba and Ten cent.

Given the current dynamic environment, renewed and transformed business institutions, the India of Atmanirbhar's pressing challenge requires a flexible, robust and forward-looking regulatory ecosystem, with well-framed regulations run by people with a vision and capability of responding to the myriad situations and reinforce a stronger, self-reliant India to help attract investment, generate jobs, sustain output and demand, enhance the overall wealth of the nation.

Endnotes

1. Strategic disinvestment would imply the sale of substantial portion of the Government shareholding of a public sector enterprise up to 50 per cent, or such higher percentage as the competent authority may determine, along with transfer of management control.

2. Budget 2000-2001 speech of Shri. Yashwant Sinha, Minister of Finance, 29th February.

3. In a televised address to the nation amid the pandemic-forced lockdown in May 2020, Prime Minister Modi floated the idea of 'Atmanirbhar Bharat'. As self-sufficiency or self-reliance.The concept has ever since became the focal point of government's economic policymaking.

4. Department of Public Enterprise(DPE) is responsible for the coordination of matters of general policy affecting all public sector enterprises evaluation and monitoring the performance of PSEs, including the memorandum of understanding mechanism, review of capital projects and expenditure in the PSEs attached to the Central Government.

5. Ms.Mallika Srinivasan, Chairman & Managing Director, Tractors and Farm Equipment (TAFE) Limited.

6. The Finance Bill, 2021 amended the LIC Act, 1956 to: (I)create a board of directors, (ii) issue shares, (iii)allow the central government to reduce its shareholding to up to 51% of the equity (but not below 75% in the first five years), and (iv) cap voting rights of shareholders other than the central government at 5%.

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Relationship between Spiritual Intelligence and Psychological Well-being among Indian and International Students in India

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The youth is our biggest asset as they are the future and foundation of any nation. Students studying in universities have recently transitioned into adulthood and are on the verge of entering the working and contributing population. This exposes them to numerous emotional and mental challenges affecting their psychological well-being negatively. It is often felt that spiritual intelligence has a calming effect on individuals which may lead to higher psychological well-being. The present study aims to explore this relationship of spiritual intelligence with psychological well-being among students in one of the leading public universities of India, Panjab University Chandigarh. The study also aims to compare the variance in spiritual intelligence as well as psychological well-being of the Indian and the international students of the university. A gender based comparison on the two variables has also been explored in the study. The study will help academicians and administrators in the universities to improve the psychological wellbeing of students by introducing interventions to develop their spiritual intelligence.

Keywords : Spiritual Intelligence, Psychological Well-being, Public Universities.

Introduction

The world is grappling with one of its most serious crisis that has ever been witnessed in living memory. The Covid 19 pandemic struck the world unawares and unprepared. Nearly two years into the pandemic, the entire world and its functioning has been paralysed. At this point, every single individual confronts an unforeseen and sudden change in life. Each one of us confronts unparalleled challenges and limitations. Taking care of the elderly and the aged population has been our utmost concern. Our youth and children are also an equally important part of our concern. The children studying in schools and the youngsters studying in the universities all over the world, in the hope of creating better lives for themselves, were suddenly left out of their institutions. This youth is our biggest asset as they are the future and foundation of any nation. Students studying in universities have recently transitioned into adulthood and are on

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the verge of entering the working and contributing population. Coming fresh out of their protected teenage years and experiencing the social and professional world as adults, in altogether independent setups exposes the youth to numerous emotional and mental challenges. The coronavirus and its related consequences is another herculean addition to the already existing challenges that these students face in this stage of their lives.

Students often become unsure of their capabilities of meeting and living up to these divergent demands (Dwyer & Cummings, 2001). It is at this point that their mental health and well-being needs to be considered and taken care of. Psychological well-being is one such variable about the perception of wellness and happiness in a person's life (Rabindranath, 2014). Deci and Ryan (2000) state that psychological well-being is broadly about physical and mental health. Deiner (2000) describes psychological well-being as a state of happiness or satisfaction that a person experiences. As per Ryff and Keyes (1995), it is evaluated through six dimensions of self-acceptance, personal growth, purpose in life, environmental mastery, autonomy and positive relations with others. Psychological well-being equips a person with feeling well, and capable of doing things. One feels well supported and satisfied in life. It is extremely important for the youth studying in our universities to feel this way to be able to cope up with the challenges they face during this very crucial phase of their lives. This will also go a long way in improving their academic performance and help them adjust better socially. It can make them more equipped to handle the responsibilities that come their way.

It has often been stated that spirituality and spiritual intelligence of a person results in a calming effect on him/her which may lead to higher psychological well-being. Spiritual intelligence has been defined "as the intelligence which is required when we begin to open up our spirit's journey and quest for greater understanding of life". Wigglesworth (2014) defines Spiritual intelligence as the ability to behave with wisdom and compassion while maintaining inner and outer peace regardless of the situation.

Spiritual intelligence is considered to be the most important of all intelligences as it serves as the foundation for optimal functioning of all other forms of intelligence such as IQ, SQ & EQ. With the entirety and vastness that spiritual intelligence gives to an individual, it is most likely to influence the psychological well-being of people. The current study aims to explore this relationship of spiritual intelligence with psychological well-being among students pursuing

their higher education in universities. The study hypothesizes that there is a significant relationship between different dimensions of spiritual intelligence and psychological well-being among university students. The exploration of this relationship will help us identify and recommend which aspects of spiritual intelligence should be developed in students so as to improve their psychological well-being and thus leading more happy and fulfilled lives. The study also aims to explore if spiritual intelligence varies among Indian students and international students studying in Indian universities.

The need for this study arises as there have been very few studies exploring the relationship of spiritual intelligence with psychological well-being. There are even fewer studies among students of universities and other institutions of higher education exploring the relationship between these two factors. Further, a comparative analysis of Indian and international students in India on these variables has rarely been done.

Review of Literature

Spiritual Intelligence

The constructs of Spirituality and Spiritual Intelligence have often intrigued researchers, academicians and philosophers. Although each individual has their own journey and experiences with spirituality, but for each one of us it is about finding a meaning for life. It is about our endeavour to figure out the reason for our existence. Spirituality is about integrating our lives with that larger force that runs the universe and an urge for enhancing one's personal self. Though various researchers and scholars have tried to define spirituality in different ways, but it is largely a belief in righteousness and ultimate good. It is considered as one of the most personal domains of human life (Danesh, 1997). Dollard (1983)explained spirituality as the ability to relate to others, ourselves and to God through one's attitudes and actions. Mayer (1999) has defined spirituality as a continuous endeavour for finding the meaning and goal of life. Gardener (1993), in his pioneering study, gave the concept of multiple intelligences and stated that IQ is just one of the forms of intelligence of an individual. Human beings are bestowed upon with multiple intelligences. The term spiritual intelligence was given by Danah Zohar (2000) in her book, Rewiring the Corporate Brain. Danah (2000) stated that there are three forms of intelligence; rational intelligence, emotional intelligence and spiritual intelligence. Zohar(2000) states that spiritual intelligence or spiritual quotient is a measure of spiritual intelligence and it helps in placing one's action and life in a more meaningful

context. She further stated that spiritual intelligence serves as the foundation for the other two forms of intelligence that is rational and emotional intelligence. Nobel (2001) and Vaughan (2003) state that eight components i.e. precision, openness, integrity, humility, kindness, generosity, tolerance and desire to meet indicate if the person has high spiritual intelligence. Over the last two decades there has been increasing research in the field of spirituality and spiritual intelligence. The researchers have tried to study the relationship of spiritual intelligence with various personal variables such as life satisfaction, leadership, subjective well-being, psychological well-being and other work related variables such as organizational commitment, organizational citizenship behavior, job satisfaction etc. Marschke et al. (2009) in their study explored the relationship between spiritual intelligence and organizational commitment to find both of them strongly correlated. Jena and Pradhan (2004) explored the relationship between spirituality and work life balance to find a moderately positive relationship and suggested that both the aspects need to be revitalized together to create a better work environment. Cox (2011) in her Ph.D thesis studied the relationship between spiritual intelligence and academic performance of students to conclude that spirituality based coping strategies lead to better academic performance. Fukofuka (2007) also stated that lower spiritual intelligence leads to poor academic performance among students. Korazija (2016) investigated the relationship between spiritual intelligence and workplace satisfaction to conclude a significant positive correlation between the two variables. Khosravi and Nikamnesh (2014) investigated the relationship of spiritual intelligence with resilience and perceived stress to conclude that spiritual intelligence helps to build resilience among people who experience stress. There have also been studies to explore the relationship between spiritual intelligence and mental health and psychological well-being which will be reviewed ahead. The literature has indicated the role that spiritual intelligence plays in creating positive personal and professional outcomes for individuals.

Psychological Well-being

Huppert (2005) stated that psychological well-being is about experiencing positive emotions and feeling good resulting in being able to utilise one's potential more effectively. Psychological well-being is not about absence of any negative emotion but about handling the negative experiences and emotions in a more positive way (Judge & Arora, 2017). However, psychological well-being is negatively affected when

one experiences negative emotions over a long period of time. They influence the day-to-day functioning of a person negatively (Klement, 2007). Studies done by Campbell (1981), Ryan and Deci (2001) have tried to explore various dimensions of psychological well-being and refer to it as optimal functioning of an individual. Well-being is stated to have two parts to it, namely Hedonic and Eudaimonic (Waternman, 1993; Ryff, 1989). Ryff (1989) defines the Hedonic component as the ability to realize happiness and pleasure. Waterman (1993) stated the eudaimonic component to be the assessment of the degree to which people are able to experience their true selves whether positively or negatively. Dolan et al. (2011) stated that there are three components of psychological well-being namely evaluative well-being, affective/hedonic well-being and eudaimonic well-being. Kahneman and Deaton (2010) also reinforced the above three dimensions of psychological well-being with evaluative well-being related to the level of satisfaction people experience with life, hedonic well-being about feelings and eudaimonic well-being about the purpose one finds for life. Diener and Lucas (1999) state the differences in the psychological well-being that individuals experience emerge at an early age in one's life. Lykken and Tellegen (1996) infer that psychological well-being has more to do with our inborn tendencies. On the other hand some researchers (Lucas, 2002) state that psychological well-being develops over a course of time depending on the situations that an individual experiences or the events that happen in one's life. However in a study (Headey & Wearing, 1992) it was suggested that there exists a basic level of well-being over which other events, situations, personality traits influence the well-being of an individual and that a person usually returns to her basic level of well-being. Blanchflower and Oswald (2008) in their study covering 74 countries concluded that well-being is higher in younger age and old age whereas it is minimum at the age of 40.

Spiritual Intelligence and Psychological Well-being

Gunnel (2017) in his study stated that psychological well-being tends to decrease as young adults leave home for tertiary education or start new careers (Hobson & Maxwell, 2017). As discussed earlier, psychological well-being is a simple feeling of happiness and pleasure but goes a long way in experiencing a more meaningful and fulfilled life. Spiritual intelligence on the other hand is about using the experiences of the soul to tide troubles of life and take decisions in life. There have been limited studies on the relationship between spiritual intelligence and psychological

well-being and even more limited in the context of university students. However, there are some studies exploring the relationship between spiritual intelligence and mental health of which psychological well-being is a component. Bozorgi and Bozorgi (2016) explored the relationship between spiritual intelligence and mental health among university students to conclude that spiritual intelligence was a moderate influence. Pant and Shrivastava (2017) in their study on 300 college students revealed that spiritual intelligence of students and their mental health was significantly correlated. Sood et al. (2012) in their research on spiritual intelligence and well-being of university students concluded that there was a significant relationship between some dimensions of spiritual intelligence and well-being. Masters (2004) found out that well-being of students is dependent on five factors : physical, emotional, mental, social and spiritual. Nobel and Emmons(2000) have also reported a significant relationship between spiritual intelligence and mental health. Deb et al. (2016) studied the relationship of spiritual intelligence of students of Indian universities with demographic factors and mental health. The results indicated a strong correlation between dimensions of spirituality and mental health.

Objectives of the Study

- To explore the relationship of various dimensions of spiritual intelligence with psychological well-being among the Indian and International students studying in Indian public universities
- To assess the variance of spiritual intelligence among the Indian and International students studying in Indian public universities.
- To assess the psychological well-being of the Indian and International students studying in Indian public universities.
- To identify the impact of gender on the level of spiritual intelligence among the Indian and International students studying in Indian public universities.
- To identify the impact of gender on the psychological well-being among the Indian and International students studying in Indian public universities.

Hypotheses

Based on the objectives the following hypothesis were proposed and consequently tested –

H01. There is no significant relationship between Spiritual Intelligence with

Psychological well-being among the Indian and International students studying in Indian universities.

H02. There is no significant difference in the Spiritual Intelligence of Indian and International students studying in Indian universities.

H03. There is no significant difference in the Psychological well-being of Indian and International students studying in Indian universities.

H04. There is no significant difference in the Spiritual Intelligence of Indian and International students studying in Indian universities on the basis of gender.

H05. There is no significant difference in the Psychological well-being of Indian and International students studying in Indian universities on the basis of gender.

Research Methodology

Research Design **:** The current study is a descriptive research for which the survey method was used to gather information about variables of spiritual intelligence and psychological well-being. The study uses the correlational research design to find out the relationship between different dimensions of spiritual intelligence and psychological well-being.

Sample : The sample consisted of 157 Indian and International students studying in one of the leading public universities of India, Panjab University, Chandigarh that was selected through the technique of snowball sampling.

Measures

Measuring Spiritual Intelligence : Spiritual Intelligence was measured using the 24 item "Spiritual Intelligence Self Report Inventory (SISRI-24) of King (2008). It consisted of four sub-scales namely critical existential thinking (CET), personal meaning production (PMP), transcendental awareness (TA), and conscious state expansion (CSE) that were rated on the 5-point Likert scale measuring responses from strongly agree to strongly disagree.

The four dimensions of the spiritual intelligence scale are explained below (King & DiCicco, 2009) :

1. Critical Existential Thinking (CET) : This dimension of spiritual intelligence is ability of an individual to critically think about the reality of existence, being, universe, time, death, and other beyond normal and existential issues.

2. Personal Meaning Production (PMP) : This dimension of spiritual intelligence is the ability of an individual to create personal purpose. It

also includes the ability to create and to dominate over the goal of life.

3. Transcendental Awareness (TA) : This dimension of spiritual intelligence is the ability to understand transcendental aspects in ourselves, others and the physical world, when you are alert and awake.

4. Conscious State Expansion (CSE) : This dimension of spiritual intelligence is the ability to enter into the levels and states of spirituality and beyond consciousness and also coming out of it when you intend.

Measuring Psychological Well-being : To measure Psychological Well-being, **Ryff's 16-item Scale of Psychological Well-being (SPWB)** was used. It measures psychological well-being on six dimensions-autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self-acceptance, on the 5-point Likert scale measuring responses from strongly agree to strongly disagree.

Data Collection

The data was gathered online through Google forms. The participants were informed about the confidentiality of their responses and that the data would only be used for academic and research pursuits. The filled-up questionnaires were received from respondents and SPSS software was used for analysis of the received data.

Statistical Techniques Used

a. Independent t-test has been done to compare the spiritual intelligence as well as psychological well-being between Indian and international students. It has also been used to study the impact of Gender on spiritual intelligence as well as psychological well-being of students.

b. Correlation Analysis has been used to study the predictive relationship between various dimensions of spiritual intelligence and psychological well-being.

c. Regression Analysis was further done to identify the relative contribution of different dimensions of spiritual intelligence on psychological well-being of students.

Analysis and Interpretation

A. Respondent Profile

As given in Table-1, 56 per cent of the students were females whereas there were 44 per cent male. Students comprising 72.6 per cent were of Indian nationality and 27.4 per cent were international students across 6 nationalities. Sixty two per cent of the students were in the age bracket of 18-24 years, 38 per cent were between 25-34 years.

Table-1 : Demographic Profile of the Students

		Frequency	Percentage
Gender	Male	69	44%
	Female	88	56%
Nationality	Indian	114	72.6%
	International	43	27.4%
Age	18-24 years	97	62%
	25-34 years	60	38%

B. Relationship Between Spiritual Intelligence and Psychological Well-being

The four dimensions of spiritual intelligence i.e. critical existential thinking (CET), personal meaning production (PMP), transcendental awareness (TA), and conscious state expansion (CSE) have been treated as four independent variables in this paper to explore the relationship between spiritual intelligence andpsychological well-being. However, the total mean value has been taken while measuring psychological well-being.

The proposed model for in mathematical term is as :

$Y = \alpha + \beta 1_{x1} + \beta 2_{x2} + \beta 3_{x3} + \beta 4_{x4}$ + error term

Where Y= psychological well-being

$x1, x2, x3,$ and $x4$ = Dimensions of Spiritual Intelligence

$\beta 1, \beta 2, \beta 3, \beta 4$ = coefficients of the dimensions of spiritual intelligence.

To study the relationship between four dimensions of Spiritual Intelligence and Psychological well-being, Pearson correlations were used. The results of the correlation are given in Table-2. The correlations are measured at 95 per cent level of significance, with strongest association between Personal Meaning Production and psychological well-being ($r=0.460$, $pd \leq 0.05$). This is followed by the dimension of Conscious State Expansion ($r=0.345$, $pd \leq 0.05$) and close next is with Transcendental Awareness ($r=0.295$, $pd \leq 0.05$). However, the lowest correlation was seen between Critical Existential Thinking and psychological well-being ($r=0.155$, $pd \leq 0.05$). The results tell that out of the four dimensions of spiritual intelligence, Personal Meaning Production contributes the most to psychological well-being among students. Students

experience psychological well-being when they are able to create personal purpose and goal for life. Transcendental Awareness and Conscious State Expansion also contribute moderately to psychological well-being among students. However, there is a very limited contribution of Critical Existential Thinking towards the psychological well-being of students.

Step-wise regression was used with the four dimensions of spiritual intelligence as predictors of psychological well-being. As shown in Table-3, in the relationship between four dimensions of spiritual intelligence (Critical Existential Thinking, Personal Meaning Production, Transcendental Awareness and Conscious State Expansion) and psychological wellbeing, the adjusted R^2 = 0.206 and was found to be statistically significant. The Personal Meaning Production dimension of spiritual intelligence was found to be significant predictor of psychological well-being of the students ie (β=0. 476, pd$\leq$0.015). However, the other three dimensions of spiritual intelligence i.e. Critical Existential Thinking, Transcendental Awareness and Conscious State Expansion were not found to be significant predictors ofspiritual intelligence. Thus, it is inferred that students experience higher psychological well-being when they experience Personal Meaning Production. This is to state that the higher their control over the goal of life, higher will be the level of psychological well-being they will experience. Further, the VIF values for Critical Existential Thinking (1.576), Transcendental Awareness (1.781), Personal Meaning Production (2.598) and Conscious State Expansion (2.584) are far below the cut-off value of 10. It can also be observed that the tolerance value are less than one indicating the absence of multicollinearity in the proposed regression model.

Table-2 : Correlation Analysis–Spiritual Intelligence and Psychological Well-being

	Critical Existential Thinking	Personal Meaning Production	Transcendental Awareness	Conscious State Expansion
Psychological Well-being	0.155**	0.460**	0.295**	0.345**

**Correlation significant at .05 level*

Table-3 : Multiple Regression Model Summary

Independent Variable		Standardized Regression Coefficients	t-value	Sig.	Tolerance Value	Variance Inflation Factor
Constant			19.625	0.000		
Critical Existential Thinking		-0.136	-1.514	0.132	0.634	1.576
Transcendental Awareness		0.118	1.243	0.216	0.562	1.781
Personal Meaning Production		0.476	4.136	0.000	0.385	2.598
Conscious State Expansion		-0.020	-0.170	0.865	0.387	2.584
Multiple *R*	0.475[a]					
R^2	0.226					
adjusted R^2	0.206					
F	19.625			0.000		
Sample Size	157					

Hypothesis Testing for H1

It is thus concluded that H1 is only partially accepted. The results of the study reveal that students experience higher psychological wellbeing when they experience Personal Meaning Production. But the other three dimensions Critical Existential Thinking, Transcendental Awareness and Conscious State Expansion did not significantly contribute to the psychological well-being among students. Thus hypotheses HI is partially accepted.

C. Variance in Spiritual Intelligence on the Basis of Nationality (between Indian and International Students)

Independent t-test was used to identify the difference in the level of spiritual intelligence among the Indian and international students studying in the university. As given in Table-5, it can be inferred that there is no significant difference in the level of spiritual intelligence among the Indian and international students (t 155=-0.926, p=0.356).

Table-5 : Independent Samples Test to Study the Variance in Spiritual Intelligence (SI) on the basis of Nationality (Indian and International Students)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
SI	Equal variances assumed	0.153	0.696	-0.926	155	0.356	-0.0838	0.0905	-0.2627	0.0950
	Equal variances not assumed			-0.887	69.71	0.378	-0.0838	0.0945	-0.272	0.1047

Hypothesis Testing for H2

Thus it can be concluded that H2 is rejected as there is no statistically significant difference in the level of spiritual intelligence among the Indian and international students studying in the university.

D. Variance in Psychological Well-being on the Basis of Nationality

(between Indian and International Students)

Independent t-test was used to identify the difference in the level of psychological well-being among the Indian and international students studying in the university. As given in Table-6, it can be inferred that there is no significant difference in the psychological well-being among the Indian and international students (t 155=-0.726, p=0.469).

Hypothesis Testing for H3

Thus it can be concluded that H4 is rejected as there is no statistically significant difference in the psychological wellbeing among the Indian and international students.

E. Variance in Spiritual Intelligence on The Basis of Gender

Independent t-test was used to identify the difference in the level of spiritual intelligence among the male and female students studying in the university. As given in Table-7, it can be inferred that there is no significant difference in the spiritual intelligence among the male and female students studying in the university(t 155=0.648, p=0.518).

Table-6 : Independent Samples Test to Study the Variance in Psychological Well-being (PWB) on the Basis of Nationality (Indian and International Students)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig.(2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
PWB	Equal variances assumed	0.004	0.950	-0.726	155	0.469	-0.0353	0.0487	-0.1316	0.0608
	Equal variances not assumed			-0.732	76.95	0.466	-0.0353	0.0483	-0.131	0.0608

Table-7 : Independent Samples Test to Study the Variance in Spiritual Intelligence (SI) on the Basis of Gender

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig.(2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
SI	Equal variances assumed	0.012	0.913	0.648	155	0.518	0.0526	0.0183	-0.108	0.2134
	Equal variances not assumed			0.646	146.81	0.519	0.0526	0.0815	-0.1084	0.2137

Hypothesis Testing for H4

Thus it can be concluded that H4 is rejected as there is no statistically significant difference in the level of emotional intelligence among the male and female employees.

F. Variance in The Psychological Well-beingon The Basis of Gender

Independent t-test was used to identify the difference in psychological well-being among the male and female students studying in the university. As given in

Table-8 : Independent Samples Test to Study the Variance in Psychological Wellbeing (PWB) on the Basis of Gender

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig.(2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
PWB	Equal variances assumed	0.467	0.495	0.161	155	0.872	0.0070	0.0438	-0.0794	0.0935
	Equal variances not assumed			0.160	140.335	0.873	0.0070	0.0443	-0.0805	0.0946

Table-7, it can be inferred that there is no significant difference in the psychological well-being intelligence among the male and female students studying in the university(t 155=-0.161, p=0.872).

Hypothesis Testing for H5

Thus it can be concluded that H5 is rejected as there is no statistically significant difference in psychological wellbeing among the male and female students studying in the university.

Implications of the Study

The findings of the current study are useful for academicians, researchers and administrators in universities. The teachers can encourage students to identify and develop their larger goals in life so as to experience more Personal Meaning Production in order to improve the psychological well-being of the students. Activities can be conducted in universities and institutions to help students in identifying the larger goals in life and thus enhance psychological well-being of students. It should further be noticed that spiritual intelligence does not vary on the basis of nationality and gender. Thus, common strategies and activities can be undertaken for the students to enhance their personal meaning production and subsequently psychological well-being.

Limitations and Directions : Future Research

The responses were collected through a self-report questionnaire. Thus, there may be a possibility that the respondents may have misinterpreted the questions. Another limitation of the study is that

it is confined to one major public university of India. However, the research can be extended to a larger number of public as well as private universities.

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A Comparative Study of the Financial Performance of Telecommunication Entities Before and After Conversion : A Case Study of Bharat Sanchar Nigam Limited (BSNL)

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The Telecom Sector in India remained a monopoly for over a century, managed by the State until 2000. By that time, restructuring of telecom services had gained momentum in many countries, the world over. In line with the changes taking place globally, the State-owned monopoly Telecom Organization, the Department of Telecom in India (DoT) was converted as Bharat Sanchar Nigam Limited (BSNL), a company in October 2000. At the same time, private sector participation in telecommunications services was also allowed in the country. As a government organization, the DoT enjoyed the monopoly status coupled with colossal powers and exclusive privileges. Contrary to this, BSNL is made to operate as one of the telecom service providers in a highly competitive market environment. These changes have influenced the overall financial performance of the newly formed BSNL. This study attempts to make a comparative financial performance of both the telecom entities, the DoT and BSNL immediately before and after conversion, with a focus on identifying the factors responsible for the present level of performance of the BSNL.

Keywords : Indian telecom sector, Financial performance of BSNL, Financial performance of Department of Telecom, Comparative Financial Performance of DoT and BSNL, Telecom restructuring in India.

Introduction

The Indian sub-continent has had a telecommunication infrastructure since the mid-19th century. In 1885, the British government formally took over direct control of the telecommunication (telecom in short) network in the country, under an Act of Parliament, "The Indian Telegraph Act 1885" was passed in that year. The telecom sector in India remained a state monopoly until 2000. Restructuring of Telecom

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services has gained momentum in many countries the world over since the eighties. The trend is to progressively de-governmentalize the telecom services and to move away from the monopoly. In line with the changes taking place the world over, India also initiated the reform process in the telecom sector in the mid-eighties.

In the year 2000, the state-owned monopoly, the Department of Telecom referred to as "DoT", in short, was converted into a Telecom Company (Telco), the Bharat Sanchar Nigam Ltd. It is renamed in short as "BSNL" and made to compete as one of the telecom service providers (Telcos) along with other private telcos in the country.

In line with this change, the government of today is considering restructuring other government organizations like Indian Railways, defence manufacturing units and ordnance factories, etc. Given the impending changes in the existing government organizations, it is considered necessary to study the factors responsible for the present level of the financial performance of BSNL so that the experience gained in BSNL can be taken as a guiding factor for the new entities to be formed.

BSNL's telecom services encompass the entire country, except for Delhi and Mumbai. Landline, mobile, long-distance telecom services, leased circuits, broadband, and the internet are the various services provided by BSNL. Providing telephone service in rural areas in the country is the mandate expected of a government-owned public enterprise.

Objectives of the Study

The broad aims of the study are as follows :

- To study the implication, effect, and differences in the functioning of state-owned organizations, the DoT, and the BSNL, in their financial performance.
- To study and highlight the differences in the functioning of DoT and BSNL.
- To compare the financial performance of both these organizations for a comparable period and to highlight the differences, if any.
- To identify the factors responsible for the present level of the financial performance of BSNL, and
- To summarize the key findings of the study and propose appropriate suggestions.

It is not an exclusive study of the financial performance of BSNL, but a study intended for identifying the factors associated with the present level of performance of BSNL.

Review of Literature

Indian telecommunications services and their evolution from a government-controlled monopoly to a competitive multi-service sector are of great interest to policymakers, researchers, and users of telecommunications services. It is seen that several authors have attempted their research on a topic connected to the BSNL, because of its presence all over the country.The following is the outcome of an analysis of existing literature on a topic related to BSNL's financial performance.

The Rakesh Mohan Committee report (1996) states that the private sector participation in India was envisioned in the year 1992, and the regulatory authority to oversee the private sector was set up in 1997. Hitherto, the government viewed the telecom sector as a cash cow, a means of generating revenue.

Anand Pawar and Pandya Nayak (June 2013) in their research studies analyzed the financial performance of BSNL for 9 years from 2002-03 to 2010-11 by applying the technique of accounting ratio analysis. He concluded that the liquidity position of BSNL seemed very strong which would enable it to meet its short-term liability obligations on time.

Rajput (2015) in his study compared the financial performance of BSNL and Idea Cellular and covered the period of five years from 2009-10 to 2013-14 and used accounting ratios as the technique. He has observed that the BSNL has made a continuous loss during the study period, which was the main cause of the weak financial position of BSNL.

Megha Gaste, Vanishri and Hundekar (2017) in their research studies have analyzed the financial performance of BSNL, Vodafone, and Airtel by applying the technique of accounting ratios for three years from 2013-14 to 2015-16. They have concluded that to maintain BSNL's reputation and image in the market, it must focus its efforts on newer technologies, understanding customers' changing needs, and continuous satisfaction of its employees. Pavithra. J. and Dilip Gurukrishnan (2018) in their study on the financial performance of BSNL considered two years of data 2008-09 and 2009-2010 and concluded that though the income figure is continuously falling the expenditure is continuously increasing in the years which is the reason for the reduction in profit. Yadagiri and Rajaram (2018) focused their analysis on the operating performance of BSNL with the absolute figures of the source of income and operating expenses for the period from 2007-08 to 2016-17. He opined that the EBIDT is the highest in the initial years of study - 2007-08 and 2008-09 and thereafter it has started to decline year after year and become negative in the year 2013-14. From the

year 2014-15, the EBIDT became positive and increasing.

Kiran Kumar (2020) on the performance of BSNL applied the technique of accounting ratios for five years from 2012 to 2017 and has recommended reducing the debt capital and providing security to the creditor and increasing the sales to reduce the loss.

Research Gap

The views and opinions of various authors who published research articles on the financial performance of the BSNL were considered. It is noted that there is not enough availability of research material and views of other authors as regards this topic of study. Therefore, this study has been undertaken to fill up this voids of shortage of evidence. In the ever-changing political scenario, which may bring about structural changes to similar organizations and institutions, this study would pave the way for future studies on these types of structural changes in government organizations.

Scope and Limitation of the Study

In the study, the comparative financial performance of DoT and BSNL is made for a limited period of ten years before and after the year of conversion. A longer period beyond ten years may not be suitable for comparison for the reasons stated hereunder.

- BSNL as a company was formed on 1st October 2000, in the middle of the financial year 2000-2001, and hence, this year is not considered for the study.
- BSNL did not function as a full-fledged company in the initial 3-4 years of its inception, except for complying with the statutory requirements such as maintenance of accounts, submission of annual returns, and tax payments.
- The Board of Directors was not constituted until 2004 with regular directors.
- The employees of BSNL were considered as on deputation by the government and were not fully absorbed as employees until the year 2005-2006.
- During this period, numerous policy issues of the conversion of DoT into BSNL remained unsettled.
- For the initial 4-5 years, the BSNL was treated similarly to a departmental structure for administration, allocation of resources and personnel, and Human Resources Development (HRD) matters.
- From the year 2004-05, the licensing requirements underwent a considerable change that boosted the entry of many private Telecom

Companies (Telcos) into the Indian telecom market. Mobile services had also not gained momentum fully by that time.

- As the Indian telecom market potential fully unexplored during this short period of 4/5 years, it had not brought out much impact on the performance of BSNL during the period; hence the performances of both these organizations are roughly identical.
- As said above, the economic environment in BSNL almost remained the same as in DoT for the initial 4/5 years and hence a comparison is meaningful for a shorter period. However, a longer period of ten years before and after the formation of BSNL is considered identifying the factors responsible for the changes in the financial performance of BSNL. In addition, deeper comparative analyses for the initial 5 years have been made on selected parameters.

Limitation of the Study

The telecom sector in India has remained as a state-owned monopoly for more than a century.

For the study, the published reports and information from government sources and BSNL have only been considered on account of the non-availability of sources from other research studies. Liberalization of the telecom sector and allowing private sector participation on a larger level was permitted around the year 2000, which has gained momentum after 2005-06. A comparison of the financial performance of both DoT and BSNL is desirable for a shorter period.

Research Methodology and Data Source

In the present study, the methodology adopted is objective and analytical. The technique of ratio analysis has also been used in some places. Apart from the above, the analysis of the performance is based on various other parameters viz, revenue and expenditure per Direct Exchange Lines (DEL), staff expenditure, and other costs of operation per DEL, operating performance of BSNL after making adjustments of additional cash flow in BSNL for making a meaningful comparison with that of the DoT.

In addition, the data of the DoT for the period of 1991-2000 is regressed, for the years from 2001 to 2010, as if the DoT continued its operation, even after 2000, using the statistical technique of regression analysis and the regressed data compared with that of BSNL. For this purpose, five selected variables have been taken into consideration, which are : (i) Total working DELs (ii) year-wise operating revenue (iii) year-wise

expenditure (iv) total staff expenses (v) other costs of operation. From the above variables, two variables - total working DELs and year-wise operating revenue is considered as independent input variables and the other three variables – year-wise expenditure, total staff expenses, other costs of operation are considered as output dependent variables.

Since there are 3 dependent variables, we arrive at 3 regression equations under the format,

Output Dependent Variable = β1 (Total Working DELs) + β2 (Year wise operating Revenue) + Constant

Where β1, β2 are the respective coefficients of the independent variables

A Study of Departmental Structure and Company Structure

Before examining further the analysis of various issues, it is important to examine the difference in the organizational structure of DoT (Departmental Structure) and that of BSNL (Company Form).

Departmental Structure

Until its conversion as BSNL in 2000, the DoT continued and functioned as a department of the Government of India. It functioned the same way as any other economic and non-economic ministries of the Government of India. For over 100 years, the DoT's departmental structure has remained unchanged, barring minor structural readjustments such as the segregation of the telecom wing from the combined Posts and Telegraphs Department in the year 1985, etc.

A high level of internal resource conservation is one of the key strengths of the departmental structure and hence free from two substantial liabilities:

i) Tax on surplus/profit.

ii) Charge on capital assets by way of a cash outflow in the form of interest/ hire-purchase or lease rentals.

The DoT unlike any other department of the Government of India prepared the commercial accounts; it included the P&L accounts, the balance sheet and followed using the accrual basis of accounting.

- Paid a dividend to the general revenue of the government and charged interest on market borrowings.
- Providing a considerable volume of information to the Parliament.
- Subject to scrutiny and high-level audit from the C&AG.
- The powers vested in the Telecom Commission are unprecedented in the government environment; it has been bestowed with administrative and financial power and autonomy.

- Similar to other departments of the government, it's budget/spending was subject to the approval of the Parliament.
- Adhered to the rules and regulations of the Government of India for the management of its organization, including human resources management, materials management, etc.
- Followed the government directives, policies, and goals of the political party in power. Unlike the private commercial organizations, where the sole purpose is profit maximization.
- Functioned as a natural monopoly department without any external interference or competitor, with the freedom to fix/revise the telecom tariff under the powers conferred on it in the Indian Telegraph Act 1885.

Social Objectives in the Government Structure

All governments have some degree of societal objectives in their policy making. A developing country like India, with a sizeable geographic area and increasing population, must balance both social and economic objectives. The target segment consisting of buyers having the purchasing power would be expected to pay the applicable prices, whereas those who lack the purchasing power deserve the subsidy and the organization providing the subsidized services may be compensated by the government.

Company Form of Structure

In contrast to the objectives and workings of DoT as a government department, the BSNL has its own set of strengths and weaknesses when compared to the departmental structure of DoT. As the BSNL has the company form of structure, it has given rise to the following additional cash flow liabilities, which were previously not seen in the departmental structure.

- Payment of corporate tax, property tax on fixed assets, and other taxes.
- Insurance of all assets, leading to additional insurance expenses.
- Interest liability is a hidden cost under DoT but more explicit in the company structure.
- Increase in salaries and perks offered to employees.
- Just as any other private telecom operator, the BSNL has to pay "License Fee" and "Spectrum charges" to the government.
- To carry out the telecom service under the purview and directions of the regulator and following the tariff structure as per the mandates prescribed by the regulator.

- To ensure effective interrelationship between various service providers and maintain technical capabilities.
- Comply with the regulatory arrangements between service providers and sharing the revenue for providing telecom services.
- Establishing and ensuring the time frames between telecom service providers for providing local and long-distance circuits.
- Settlement of disputes between telecom service providers.
- To ensure compliance of "Universal Service Obligation (USO)."

For over a century, DoT remained as a departmental structure and enjoyed the benefits of its monopoly status. As a government organization, the power and privileges possessed by DoT were enormous, including the power to fix tariffs without any external interference or control. However, the BSNL has to comply like any other company, with the statutory requirements in terms of corporate taxes, license fees, and spectrum charges, etc.

Evaluation of the Financial Performance of DoT and BSNL

The financial performance of telecom organizations can be assessed using criteria like profitability, financial ratios, and other financial parameters. Analysis of the financial performance of the DoT for 10 years before its conversion to BSNL and 10 years for BSNL, since its inception in October 2020, is considered for evaluation of the financial performance of both these organizations. For additional analysis, the data of DoT for 10 years ending March 2000 is regressed to 10 years beyond 2001-02 as if the DoT continued its operation beyond that year and the regressed data compared with that of BSNL. The year 2000-01 is omitted, as the formation of BSNL was in the middle of the financial year.

An Overview of the Financial Results of the DoT and BSNL

A study of operating revenue, operating expenses, net operating revenue, and net profit after considering other revenue and expenditure may help to give an overview of the financial performance of DoT and BSNL. For this purpose, the financial data of DoT for 10 years before converting as BSNL, and for BSNL up to the financial year of 2018-19, since its formation, is considered. This information for DoT and BSNL is shown in Tables-1(a), 1(b) respectively. The regressed data of DoT beyond 2000-2001 is shown in Table-1(c).

Table-1(a) : Operating Revenue, Operating Expenses, Net Operating Revenue, and Net Profit for Selected Years

An Overview of the Financial Results of the DoT						
						(₹ in Crores)
Year ending 31st March'	Operating Revenue	Operating Expenses	Net operating Revenue	Other Revenue	Other Expenses	Net Profit
1991	3459	1682	1777	110	398	3349
1992	3998	1939	2060	113	463	3885
1993	4694	2184	2510	351	666	4343
1994	6268	2475	3793	394	1503	5874
1995	7654	2898	4756	512	1292	7142
1996	9676	3473	6203	656	1202	9020
1997	12186	4727	7458	793	2043	11393
1998	14590	5898	8692	867	1062	13723
1999	17638	6709	10928	836	915	16801
2000	18629	7261	11367	961	353	11975

Source : Compiled from the information contained in DoT and BSNL Annual Reports, Indian telecom statistics of various years, and in other published reports of the government.

Table-1(b) : Operating Revenue, Operating Expenses, Net Operating Revenue, and Net Profit for Selected Years

An Overview of Financial results of BSNL						
						(₹ in Crores)
Year ending 31st March'	Operating Revenue	Operating Expenses	Net operating Revenue	Other Revenue	Other Expenses	Net Profit
2002	24300	19993	4306	2682	6520	6312
2003	25293	24714	579	2899	2658	1444
2004	31399	27075	4324	4819	8996	5977
2005	33450	29372	4078	4406	7920	10183
2006	36139	30817	5322	4621	8447	8940

(Contd...)

2007	34616	30686	3930	5099	8154	7806
2008	32360	23078	9282	5694	4452	3009
2009	30269	25388	4881	5543	-	575
2010	27913	24530	3384	4132	-	-1823
2011	27934	36586	-8652	2643	-	-8851
2012	25999	27228	-1229			-8851
2013	25655	26213	-558			-7884
2014	26153	28687	-2534			-7020
2015	28645	37292	-8647			-8234
2016	32918	36742	-3824			-4859
2017	31534	36327	-4793			-4793
2018	25071	33809	-8738			-7993
2019	19321	34225	-14904	-14904		

Source : Compiled from the information contained in DoT and BSNL Annual Reports, Indian telecom statistics of various years, and in other published reports of the government.

Table-1(c) : Operating Revenue, Operating Expenses, Net Operating Revenue, and Net Profit for Selected Years

An Overview of the Financial Results of the DoT (Based on Regressed Data)			
			(₹ in Crores)
Year ending 31st March'	**Operating Revenue**	**Operating Expenses**	**Net Profit**
2002	21747	8238	17944
2003	23573	8902	19359
2004	25399	9566	20773
2005	27225	10229	22188
2006	29051	10893	23602
2007	30877	11557	25016
2008	32702	12220	26431
2009	34528	12884	27845
2010	36354	13548	29260

Source : The data in Table 1(a) is regressed and arrived at the data as if the DoT continued its operation beyond the year 2000-2001.

It could be seen from the information gleaned from the Table in the preceding page that the DoT continued to generate a net profit in all the years. It was steadily increasing year by year and stood at ₹16,801 crores in 1998-99. However, the net profit declined to ₹11,975 crores in the last year of its operation in 1999-2000.

As for the BSNL, it generated net profit from the first year of its existence in 2001-02 to 2008-09. However, there is no consistency in the net profit generated. It went up to ₹10,183 crores in 2004-05 and started to decline thereafter every year till 2008-09. A low net profit of ₹1,444 crores in 2002-03 is due to the payment of liabilities of earlier years which could be unassessed and paid in the initial years of formation. From the year 2009-10 onwards, it started to show a net loss, loss of ₹1,823 crores in 2009-10. The loss has increased to ₹7,020 crores in 2013-14 and further to ₹8,234 crores in 2014-15. It shows a higher loss of ₹14,904 crores in 2018-19 ever since its formation.

The regressed data of DoT beyond 2001-2002 reveal that the DoT should have generated a net profit with a steady increase in all the years and stood at ₹29,260 crores in 2009-10 as against a loss of ₹575 crores sustained by the BSNL in that year.

Revenue per Direct Exchange Line (DEL)

For detailed analysis, a telephone connection which is the total of landlines, cellular, mobile, and broadband, termed as direct exchange lines or "DEL" in short, is taken as a basic unit for overall reference and evaluation purposes, in the study. This is because the performance of telecom organizations cannot be evaluated based merely on the overall financial results.

The year-wise revenue, which includes the telegraph and telex services (up to 2013, this service was closed in 2013, in the country), the number of working DELs, and the revenue per DEL per annum are shown in Table-2(a) and 2(b) for DoT and BSNL.The regressed data of DoT beyond 2000-2001 is shown in the Table-2(c).

In DoT, for three years from 1991-93, the revenue per DEL stabilized around ₹7,000 per annum, and for the period of six years from 1993-94 to 1998-99, it stabilized at ₹8,000 per annum. However, it declined to ₹6,528 in the last year of its operation in 1999-2000.

In BSNL, the revenue per DEL is around ₹7,000 crores in the initial four years of its operation and thereafter it started to decline every year and stood at ₹2,869 in 2009-10.

Table-2(a) : Year-wise Revenue, Total Working DELs, and Revenue per DEL in DoT

S.No.	Year Ending 31st March'	Year-wise Revenue (₹ in crores)	Total Working DELs (No. in thousands)	Revenue per DEL (₹)
1	1991	3459	5075	6816
2	1992	3998	5810	6882
3	1993	4694	6797	6906
4	1994	6268	8026	7810
5	1995	7654	9795	7814
6	1996	9676	11978	8078
7	1997	12186	14882	8189
8	1998	14590	18684	7809
9	1999	17638	22813	7731
10	2000	18629	28537	6528

Source : Compiled from the information contained in DoT and BSNL Annual Reports, Indian telecom statistics of various years, and in other published reports of the government.

Table-2(b) : Year-wise Revenue, Total Working DELs, and Revenue per DEL in BSNL

S.No.	Year Ending 31st March'	Year-wise Revenue (₹ in crores)	Total Working DELs (No. in thousands)	Revenue per DEL (₹)
1	2002	24300	34176	7110
2	2003	25293	38189	6623
3	2004	31399	41649	7539
4	2005	33450	46935	7127
5	2006	36139	55159	6552
6	2007	34616	64724	5348
7	2008	32360	72339	4473
8	2009	30269	81491	3714
9	2010	27913	97281	2869

Source : Compiled from the information contained in DoT and BSNL Annual Reports, Indian telecom statistics of various years, and in other published reports of the government.

Table-2(c) : Year-wise Revenue, Total Working DELs, and Revenue per DEL in (Regressed Data)

S.No.	Year Ending 31st March'	Year-wise Revenue (₹ in crores)	Total Working DELs (No. in thousands)	Revenue per DEL (₹)
1	2002	21747	29484	7821
2	2003	23573	31984	7878
3	2004	25399	34483	7934
4	2005	27225	36982	7990
5	2006	29051	39481	8046
6	2007	30877	41980	8102
7	2008	32702	44479	8158
8	2009	34528	46979	8215
9	2010	36354	49478	8271

Source : The data in Table 2(a) is regressed and arrived at as if the DoT continued its operation beyond the year 2000-2001.

The revenue per DEL in DoT as per the regressed data reveals that the revenue per DEL remained around ₹8,000 in all the years beyond 2001-02 and is at ₹8,271 as against the BSNL figure of ₹2,869 in 2009-10.

Expenditure per DEL

Information on year-wise total expenditure, the working DELs, and the expenditure per DEL for DoT and BSNL is shown in Table-3(a) and 3(b) respectively. The regressed data of DoT beyond 2000-2001 is shown in Table-3(c).

In DoT, the expenditure per DEL was higher at ₹4,513 per DEL in 1990-91 and thereafter started to decline year by year and stood at ₹2,545 in the last year of operation in 1999-2000.

In BSNL, it was ₹5,850 in the first year of its operation in 2001-02, almost double the corresponding figure of ₹2,545 in DoT in the last year of its operation in 1999-20. It increased marginally in the next three years between 2003 and 2005 and started to decline thereafter every year, which stood at ₹2,522 in 2009-2010.

Table-3(a) : Year-wise Revenue, Total Working DELs, and Revenue per DEL in DoT

S.No.	Year ending 31st March'	Year-wise Expenditure (₹ in crores)	Total Working DELs (in thousands)	Expenditure per DEL (₹)
1	1991	1682	5075	4513
2	1992	1939	5810	3337
3	1993	2184	6797	3213
4	1994	2475	8026	3084
5	1995	2898	9795	2958
6	1996	3473	11978	2899
7	1997	4727	14882	3177
8	1998	5898	18684	3157
9	1999	6709	22813	2941
10	2000	7261	28537	2545

Source : Compiled from the information contained in DoT and BSNL Annual Reports, Indian telecom statistics of various years, and in other published reports of the government.

Table-3(b) : Year-wise Revenue, Total Working DELs, and Revenue per DEL in BSNL

S.No.	Year ending 31st March'	Year-wise Expenditure (₹ in crores)	Total Working DELs (in thousands)	Expenditure per DEL (₹)
1	2002	19993	34176	5850
2	2003	24714	38189	6472
3	2004	27075	41649	6501
4	2005	29372	46935	6258
5	2006	30817	55159	5587
6	2007	30686	64724	4741
7	2008	23078	72339	3190
8	2009	25388	81491	3115
9	2010	24530	97281	2522

Source : Compiled from the information contained in DoT and BSNL Annual Reports, Indian telecom statistics of various years, and in other published reports of the government.

Table-3(c) : Year-wise Expenditure, Total Working DELs and Expenditure per DEL in DoT (Regressed data)

S.No.	Year ending 31st March'	Year-wise Expenditure (₹ in crores)	Total Working DELs (in thousands)	Expenditure per DEL (₹)
1	2002	8238	29484	2373
2	2003	8902	31984	2249
3	2004	9566	34483	2124
4	2005	10229	36982	2000
5	2006	10893	39481	1875
6	2007	11557	41980	1751
7	2008	12220	44479	1626
8	2009	12884	46979	1502
9	2010	13548	49478	1377

Source : The data in Table-3(a) are regressed and arrived at as if the DoTcontinued its operation beyond the year 2000-2001.

The expenditure per DEL in DoT as per the regressed data shows that the expenditure per DEL is going on decreasing steadily every year from ₹2,373 in 2001-02 to ₹1,377 in 2009-10 against the figure of ₹2,522 in BSNL in 2009-10.

Operating Ratio

Expenditure per DEL along with the revenue per DEL and the expenditure expressed as a percentage of the revenue, that is the operating ratio, for DoT and BSNL is shown in Table- 4(a) and 4(b) respectively. The regressed data of DoT beyond 2000-2001 is shown in Table- 4(c). The higher the figure, the lower the operating efficiency and vice versa.

It may be seen in the accompanying Tables that in DoT, the operating ratio, which was between 65 and 67 per cent for 3 years from 1990-91 to 1992-93, started to decline slowly, from 1993-94 with small fluctuations and stood at 52 per cent in 1998-99. The figures indicate that in the mid-nineties, the operating efficiency had increased. However, it rose again to 54 per cent in the last year of operation in 1999-2000. The introduction of high-tech equipment in the telecom network has contributed to the

Table-4(a) : Revenue per DEL, Expenditure per DEL, and the Percentage of Expenditure to the Revenue per DEL in DoT (Operating Ratio)

S.No.	Year ending 31st March'	Revenue per DEL (₹)	Expenditure per DEL (₹)	Percentage of Expenditure to Revenue (Operating Ratio)(%)
1	1990-91	6816	4513	66
2	1991-92	6882	4608	67
3	1992-93	6906	4532	66
4	1993-94	7810	4338	56
5	1994-95	7814	4230	54
6	1995-96	8078	4154	51
7	1996-97	8189	4398	54
8	1997-98	7809	4291	55
9	1998-99	7731	4010	52
10	1999-2000	6528	3506	54

Source : Compiled from the information contained in DoT and BSNL Annual Reports, Indian telecom statistics of various years, and in other published reports of the government.

Table-4(b) : Expenditure per DEL, Revenue per DEL, and the Percentage of Expenditure to the Revenue per DEL in BSNL (Operating Ratio)

S.No.	Year ending 31st March'	Revenue per DEL (₹)	Expenditure per DEL (₹)	Percentage of Expenditure to Revenue (Operating Ratio)(%)
1	2001 -02	7110	5850	82
2	2002 -03	6623	6472	98
3	2003 -04	7539	6501	86
4	2004 -05	7127	6258	88
5	2005 -06	6552	5587	85
6	2006 -07	5348	4741	89
7	2007 -08	4473	3190	71
8	2008 -09	3714	3115	84
9	2009 -10	2869	2522	88

Source : Compiled from the information contained in DoT and BSNL Annual reports and Indian telecom statistics of various years and other published reports of the government.

Table-4(c) : Revenue per DEL, Expenditure per DEL, and the Percentage of Expenditure to the Revenue per DEL in DoT (Operating Ratio) (Regressed Data)

S.No.	Year ending 31st March'	Revenue per DEL (₹)	Expenditure per DEL (₹)	Percentage of Expenditure to Revenue (Operating Ratio)(%)
1	2002	7821	3693	47
2	2003	7878	3606	45
3	2004	7934	3519	43
4	2005	7990	3432	42
5	2006	8046	3345	40
6	2007	8102	3258	38
7	2008	8158	3171	37
8	2009	8215	3084	35
9	2010	8271	2997	33

Source : The data in Table 4(a) is regressed and arrived at as if the DoT continued its operation beyond the year 2000-2001.

increased efficiency and the replacement of non-electronic equipment contributed to the overall decrease in the cost of operation, resulting in the decrease in the telephone-employee ratio.

At BSNL, the operating ratio was around 80 to 90 per cent, and it was the highest at 98 per cent in 2002-03. It reveals that in BSNL, the operating efficiency had decreased from 2001-02 with a figure of around 85 per cent. It was the highest at 98 per cent in 2002-03 and a low of 71 per cent in 2007-08.

The regressed data of DoT reveal that the operating ratio has come down every year from 47 per cent in 2001-02 to 33 per cent in 2009-10 against the constant figure of around 80 to 90 per cent in BSNL in all the years. This shows clearly that the operating efficiency of BSNL is lower than that of DoT.

Staff Expenses and Cost of Operation per DEL

The staff expenses, cost of operation, and its expenses per DEL are shown in Table-5(a) and 5(b). The regressed data of DoT beyond 2000-2001 is shown in Table-5(c).

Table-5(a) : Staff Expenses, Cost of Operation, and its Expenses per DEL in DOT

Year Ending 31st March'	Total No. of DELs (in 000)	Total Staff Expenses (₹ in crores)	Staff Expenses per DEL (₹)	Total of Other Costs of Operation (in crores)	Other Costs of Operation per DEL (₹)
1991	5074	1035	2041	259	510
1992	5809	1158	1993	289	498
1993	6796	1235	1818	309	454
1994	8025	1359	1694	340	423
1995	9795	1537	1569	384	392
1996	11978	1800	1502	450	376
1997	14881	2261	1520	565	380
1998	18684	3635	1945	290	155
1999	22812	4015	1760	324	142
2000	28537	4366	1530	168	59

Source : Compiled from the information contained in DoT and BSNL Annual Reports, Indian telecom statistics of various years, and in other published reports of the government.

Table-5(b) : Staff Expenses, Cost of Operation, and its Expenses per DEL in BSNL

Year Ending 31st March'	Total No. of DELs (in 000)	Total Staff Expenses (₹ in crores)	Staff Expenses per DEL (₹)	Total of Other Costs of Operation (in crores)	Other Costs of Operation per DEL (₹)
2002	34176	3848	1126	3996	1169
2003	38189	6266	1641	5465	1431
2004	41649	6377	1531	7112	1708
2005	46935	8393	1788	7952	1694
2006	55159	7421	1345	10497	1903

(Contd...)

2007	64724	7309	1129	10916	1687
2008	72339	8809	1218	11117	1537
2009	81491	11363	1394	11378	1396
2010	97281	13455	1383	10199	1048

Source : Compiled from the information contained in DoT and BSNL Annual Reports, Indian telecom statistics of various years, and in other published reports of the government.

Table-5(c) : Staff Expenses, Cost of Operation, and its Expenses per DEL in DoT (Regressed data)

Year Ending 31st March'	Total No. of DELs (in 000)	Total Staff Expenses (₹ in crores)	Staff Expenses per DEL (₹)	Total of Other Costs of Operation (in crores)	Other Costs of Operation per DEL (₹)
2002	29484	4799	1494	341	16
2003	31984	5192	1456	341	-33
2004	34483	5586	1419	342	-83
2005	36982	5979	1381	342	-133
2006	39481	6373	1344	342	-182
2007	41980	6767	1306	343	-232
2008	44479	7160	1269	343	-282
2009	46979	7554	1231	344	-331
2010	49478	7948	1194	344	-381

Source : The data in Table 5(a) is regressed and arrived as if the DoT continued its operation beyond the year 2000-2001.

From the Table it is seen that in DoT, the total of staff expenditure was increasing steadily every year from 1990-91 to 1999-2000. The reason for the increase is on account of the increase in staff strength, owing to the growth of the telecom network. However, staff expenditure per DEL declined steadily from ₹2,041 in 1990-91 to ₹1,530 in 1999-2000. The reason for the decline in the expenditure per DEL was on account of the increase in the number of DELs from ₹50.74 lakhs in 1990-91 to ₹2.85 crores in 1999-2000. The

other cost of operation per DEL has declined steadily, from ₹510 in 1990-91 to ₹59 in 1999-2000.

In BSNL, the staff expenditure per DEL was increasing slightly every year compared to the position in DoT. The main reason being the steady increase in the number of DELs which had brought down the staff expenditure per DEL. The other reason was the decrease in the number of employees from 4.19 lakhs in 2001-02 to 2.92 lakhs in 2009.10, combined with the increase in the number of DELs from 3.41 crores in 2001-02 to 9.73 crores in 2009-10.

As far as the cost of operation per DEL in BSNL is concerned, it has increased more than ten times when compared to the position in DoT. In the last year of operation of DoT in 1999-2000, it was 59 per DEL. In BSNL, in the first year of its operation in 2001-02, it was ₹1,169. It increased to ₹1,903 in 2006, thereafter, started to decline and stood at ₹1,048 in 2010. The increase in this item of expenditure is the main reason for the overall poor financial performance of BSNL.

According to the regressed data of DoT, there is a steady decrease in the staff expenditure per DEL every year against the increase in fluctuation with BSNL during the same period. As regards the cost of operation per DEL, the regressed data from DoT show a very small figure of ₹16 in 2001-02 to a negative figure thereafter. It reveals the expenditure on this count in DoT is negligible. Whereas in BSNL this expenditure per DEL had a steady increase from ₹1,169 in 2001-02 to ₹1,903 in 2005-06 and started to decline thereafter and stood at ₹1,048 in 2009-10. It shows clearly that the other cost of expenses in BSNL is substantial, which is also one of the reasons for its poor financial performance.

Assessment of Additional Cash Flow Liabilities in BSNL

The following are the additional cash flow liabilities in BSNL, which were not there in DoT.

- Corporate and other taxes such as property taxes, etc.
- Insurance on assets.
- Interest liabilities.
- Additional payments to employees like perks, etc.
- Retirement and pensionary benefits.
- Payment of license fee to the government.
- Payment of spectrum charges of the government.

Total cash outflow from all these liabilities for five years from 2001-02 to 2005-06 has been compiled and furnished in Table-7 to assess and point out its profound effect on the overall financial performance of BSNL.

The accompanying Table shows that the additional cash flow was about ₹4,000 to ₹5,000 crores per year. When the total of these outflows adds to the net profit, the increase in profit is in the order of 39 to 72 per cent, a year. The net profit after adjustment in the

Table-6 : Effect on the Net Profit and Operating Ratio after Adjusting the Additional Cash Outflow in BSNL.

S.No.	Details		2001-02	2002-03	2003-04	2004-05	2005-06
A. Effect in Net Profit (PAT) (after making adjustments)							
1	Net Profit (Original book figure)	₹ in Crores	6312	1444	5977	10183	8940
2	Add : Total of all additional expenses in BSNL	₹ in Crores	4384	4512	4286	3945	5182
3	Revised net profit after adjustment	₹ in Crores	10696	5957	10262	14128	14122
4	Percentage of increase	Percent (%)	69	312	72	39	58
B. Effect in Operating Ratio. (Revised OR)							
1	Original total expenses as per books	₹ in Crores	19993	24714	27075	29372	30817
2	Less additional expenses	₹ in Crores	4384	4512	4286	3945	5182
3	Revised expenditure after adjustment	₹ in Crores	15609	20202	22790	25427	25635
4	Revised expenses per DEL after adjustment	(₹)	4568	5290	5472	5418	4648

(Contd...)

5	Original expenses per DEL	(₹)	5850	6472	6501	6258	5587
6	Quantum of decrease in expenses per DEL	(₹)	1282	1182	1029	840	939
7	Revised operating Ratio	Percent (%)	64	80	73	76	71
8	Original operating ratio (Before adjustment)	Percent (%)	82	98	86	88	85
9	Decline in OR figure (Increase in efficiency)	Percent (%)	18	18	13	12	14

Source : Compiled from the information contained in DoT and BSNL Annual Reports, Indian telecom statistics of various years, and in other published reports of the government.

year 2002-03 is very high due to the booking of the liabilities of the earliest year in the books of accounts, which could not be assessed and paid in the initial year of its formation.

The Effect in Operating Ratio per DEL

The amount of additional cash flow is approximately ₹900-1,200 per DEL per year. The revised operating ratio after the adjustment has come down by 12 to 18 per cent in these years, which reveals that in the absence of this additional expenditure, the operating efficiency of BSNL might have been higher, resulting in better financial performance. However, the adjusted operating ratio is still 20 to 30 per cent higher than that of the DoT. This makes it clear that the operating efficiency is comparatively lower in BSNL than in DoT.

Conclusion

The performance of BSNL is not satisfactory when compared to the performance of the DoT. The following are the reasons adduced for the unsatisfactory performance of BSNL.

The DoT, as a monopoly government department, had enjoyed enormous power to regulate the telecom tariffs on its own under the powers conferred in the Indian Telegraph Act 1885. Whenever there was a shortfall of funds, it met it by way of revising the telecom

tariffs. It functioned independently, without any outside interference. These are all contributed to the good performance of DoT.

By contrast, BSNL has the following disadvantages :

- It has to function as one of the telecom operators, following the statutes of the government like any other telecom company in the country.
- As private participation in the telecom sector is permitted from the time of inception of BSNL, it has to function in a competitive environment, which is not the case with DoT.
- Inability to alter the prices and tariffs in its favour, as it has to adhere to the guidelines mandated by the Regulator, like any other private telcos.
- The continuity of functioning just as a government structure, even after the conversion, contributed to the reduced performance.
- It has no freedom to function independently, but has to follow the directives of the Administrative Ministry and the Department of Telecom, Government of India, and also the directives of the Department of Public Sector Enterprise, like any other Central Public Sector Enterprises.
- It has to bear unquantifiable hidden costs.

Recommendations

The following recommendations are made given the prevailing telecom scenario unfolding in the country :

Keeping the minimal autonomy for any significant change in the operating cash flows of BSNL, due to the prevailing regulated tariff environment and the slow growth rate of its revenue in view, the government should extend liberal policy guidelines to support the functioning of BSNL, as it is the only government-owned telco in the country and its services are needed to provide the telecom services to hilly, inaccessible and rural areas and also in the North-Eastern states.

- As BSNL is the only telecom service provider in rural, hilly and inaccessible areas, the license fee,corporate tax and spectrum charges, and contribution collected for the Universal Service Obligation (USO) fund, etc. by the government from all telecom service providers should be used to pay a subsidy to the

BSNL to meet its losses on account of providing the service to rural areas and its other obligation to the government as the only public sector enterprise in the telecom sector in the country.

- The BSNL should be allowed to function independently and to decide on its own for decision-making, like any other private Telcos, without the interference of the government.
- Above all, the BSNL should concentrate on improving the quality of service for customer satisfaction. By doing this, it may not only result in the retention of the subscriber base but also can draw new subscribers in the competitive environment. In this manner, the BSNL can generate more revenue and surplus to run across its function and future investment needs.

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A Study of Priority Sector Lending and Perception of Bank Managers : A Case of Haryana State

Shilpa Rani* & Neelam Dhanda**

Commercial banks have been one of the major functionalities in boosting the priority sector in the country. However, the pressure on these banks has increased in recent past due to the advent of new policies by the government. The role of the service enablers thus assumes a critical role to deliver the best services to the customers. The present study thus analyses the perception of bank managers towards the priority sector lending in the state of Haryana. The study thus asserts the perception of the bank managers in delivering services to the priority sector. It also envisages the role of the enablers of services in dealing with the lending of the priority sector. There exists a strong need to increase the number of contact points in the service delivery chain of the banks. The number of branches in the rural areas should also be increased to allow for greater penetration of the banks in these areas. The study utilized a sample of 150 bank managers from Haryana to gather data. Factor analysis was conducted for data reduction. The main factors contributing to the service perception were the repayment structure and the rate of interest levied by the banks. Both these factors contributed to a 56.35% variance in the dependent variable of service perception. The results suggest that adequate impetus should be provided to various processes of loan disbursement and recollection of the loan amount. The rate of interests also assumed a greater importance, since lower rates attract more rural consumers to the branch. The study thus provides insights into the policy and practice measures which may be undertaken appropriately by the government.

Keywords : Priority sector, Lending, Perception, Bank Managers, Haryana.

Introduction

The priority sector refers to those sectors of the economy which may not get timely and adequate credit in the absence of this special dispensation (Dave, 2016). Several policies and practice guidelines were issued by the Reserve Bank of India in this connection which tried to outline the various

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categories of priority sector. This has thus given momentum to the priority sector lending and has also enhanced the scope of services being delivered by both the public and private sector banks. Commercial banks are the pillars of the priority sector lending in the country. Before 1967-1968, agriculture, and small and medium-sized industries did not receive much attention, and primarily advances were given to large and medium industries and business houses. The National Credit Council in its report on July 24th, 1968, laid stress on the role of the commercial banks and their increased role in providing money to agriculturalists and small-scale industries. However, the enablers of services in these banks still encounter a lot of problems to meeting the standards being set by the government. Hence, the objectives of this study are to explore the various problems of managers' working in both public and private sector banks and provide appropriate solutions as required for the priority sector.

Review of Literature

A review of the priority sector lending in India suggests that the prime motive of the government to provide a boost to this sector was to assist the priority sector areas which were long been neglected by the government and to help these sectors such as agriculture and small-scale industries and the weaker sections of the society to join the mainstream. The priority sector lending mainly ensures the banking system extends institutional finance to the neglected sectors (Ahmed, 2009; Yadav & Sarma, 2021). Does Credit Market Intervention Enhance Economic Outcome? Evidence from India's' Priority Sector Lending 'Policy. Review of Development Finance, 11(1), 46-65.). RBI has made various changes in priority sector guidelines from time to time (Goyal et al, 2015). Studies (Joshi, 1972) have suggested a clear demarcation of the priority sector to affirm the beneficiaries of this sector a hassle-free loan processing and delivery. Various studies (Chawala, 1979) have examined that the credit flows to the priority sector was not as per the reforms being made by the government. Earlier research studies (Angadi, 1983) have observed the concentration of lending in some States due to various reasons such as inefficient services and processing abilities etc. Studies (Ahmed, 2009) also suggest that the demand for loans in the priority sector is on a rise on account of various government initiatives to boost up this sector. Ghosh (1982) committee examined the function of banks in existing goal of 40 per cent of total credit score to priority region should continue and suggested that the definition of weaker sections should correspond with specific beneficiaries

underneath the 20-factor programme and include artisans, and beneficiaries of integrated rural improvement programme and differential charge of hobby scheme including SCs/STs. Researchers (Gaur & Mohapatra 2019) have attempted to analyze the non-performing assets (NPA's) in both the priority and non-priority sectors for a period of five years and reported that banks do not feel discouraged by the non-performing assets of the priority sector. Hence, the government should take initiatives to provide various incentives to the banks and employees who perform better in the priority sector lending.

There is vast research which studies the impact of this lending on the economy, banks, and beneficiaries. However, not many studies envisage the perception of the service enablers in these lending. In this study, researchers try to find out the factors related to service enablers of priority sector lending which have a significant impact on the quality of services.

Data Collection

The present research is exploratory research which aims to assess the perception of bank managers in the public and private sectors towards the priority sector lending. The data was collected from managers of both public and private sectors and were probed about their perception of the current state of problems witnessed in lending to the priority sector. Since the problems encountered by these managers were scattered in a multitude of factors, the study utilized factor analysis to summarize these data into a smaller number of variables.This problem of dimensionality when the information is scattered in many input variables was resolved using factor analysis. The study utilized the various factors from literature which impact the lending processes in these banks.This included factors related to the procedural aspects of the time taken to disburse the loan and proper training of the managers, processing fee requirements, appraisal system and rate of interest. The number of factors extracted is based on degree of the correlation between the variables. The sample size was more than five times of the variables included in the study. Principal component analysis was used since the aim was to determine the minimum number of variables causing the maximum variance in the perception of the bank employees. The data were also subjected to rotation since the factor loading created initially were difficult to interpret. Rotation provided relatively simple structures which reduced the problem where one variable was loaded heavily between two factors.This study utilized varimax rotation to obtain higher loading under a single factor. The study will cover the

state of Haryana as it is one of the fastest growing economies in India, contributing significantly to the priority sector lending. Four districts of Ambala, Rohtak, Hisar and Gurgaon were chosen for the study based on their contribution to the state economy. The various branches in these cities were then approached for a representative sample size from them, both in the public and private sector domain. A total sample size of 158 managers, were approached for the study and were administered questionnaires for the study. Out of 158 schedules received, only 150 were duly filled-in and utilized for study purposes.

Data Analysis

The various bank managers comprising 76 were from public sector banks and 74 from private sector banks. The initial questions regarding whether the bank fulfills the target set for lending to the priority sector received a positive response from 56 per cent of the managers. The remaining 44 per cent of the managers denied the fulfillment of targets. more than 28 were required for 7 banks

For agricultural loans,the time taken was between 22-28 days. For small and industrial loans, it took more than 28 days and for other priority sector loans the time taken was between 15-21 days. From the public bank category, the time of processing was less than 7 days for 57.9 per cent of the banks, i.e., 37 banks. More than 28 days were required for only two banks. In the private bank category, the number of days required for processing was less than 7 days for 50 per cent of the banks, i.e., 37 banks. On the other hand, the number of days more than 28 were required for seven banks in all. The primary delay for the sanction and disbursement of loans was attributed to the paucity of bank staff. The next underlying reason was the unnecessary queries held up for the loan being sanctioned by the bank. The third reason was the excessive documentation requirements.

The KMO and Bartlett's test were adequate for sampling adequacy (Table-2). The communalities (Table-3) also suggest the extraction values were mostly higher than .36. Table-(4 and 7) suggest that only two factor solutions to the various key aspects of the service delivery chain in the banks. The varimax rotated solution of the various variables (Table-5 and 6) has been summated above and suggests a cumulative variance of 56 per cent which can be an acceptable percentage of variance. Thus, the two factors can depict 56 per cent variance in the dependent variable that is employee's satisfaction with the various processes and practices in the bank.

Table-1 : Correlation Analysis

Correlation Matrix								
	ROI	**PR Fee**	**Sec**	**Repay**	**App Sys**	**Trai-ning**	**Cust Serv**	**Time to Loan**
Rate of Interest	1.000							
Processing Fee	.589	1.000						
Security	.273	.377	1.000					
Repay	.366	.240	.452	1.000				
Application System	.113	.160	.128	.101	1.000			
Training	.003	.052	-.021	.270	.422	1.000		
Customer Service	-.060	.163	-.020	.446	.325	.308	1.000	
Time to Loan	.046	.137	.055	.399	.314	.550	.471	1.000

Source : Primary Study by Authors.

Table-2 : KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.775
Bartlett's Test of Sphericity	Approx. Chi-Square	358.187
	df	28
	Sig.	.000

Source : Primary Study by Authors.

Table-3 : Communalities

	Initial	**Extraction**
Rate of Interest	1.000	.650
Processing Fee	1.000	.623
Security Requirement	1.000	.500
Repayment Scheme	1.000	.564
Appraisal System	1.000	.367
Training Employees	1.000	.602
Customer Service	1.000	.542
Time to Loan	1.000	.661

Extraction Method : Principal Component Analysis.

Source : Primary Study by Authors.

Table-4 : Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.716	33.948	33.948	2.716	33.948	33.948	2.399	29.991	29.991
2	1.792	22.404	56.352	1.792	22.404	56.352	2.109	26.361	56.352
3	.954	11.923	68.275						
4	.779	9.742	78.017						
5	.695	8.683	86.700						
6	.510	6.370	93.070						
7	.389	4.863	97.933						
8	.165	2.067	100.000						

Extraction Method : Principal Component Analysis.

Source : Primary Study by Authors.

Table-5 : Component Matrix Component

	1	2
	.439	.676
	.530	.585
	.427	.563
	.730	.176
	.545	-.264
	.596	-.496
	.621	-.395
	.699	-.416

Extraction Method : Principal Component Analysis.

a. Two components extracted.

Source : Primary Study by Authors.

Table-6 : Rotated Component Matrix

	Component	
	1	2
Rate of interest	-.040	.805
Processing fee	.087	.785
Security requirement	.017	.707
Repayment scheme	.489	.570
Appraisal system	.597	.105
Training employees	.774	-.053
Customer service	.735	.044
Time to loan	.810	.072

Extraction Method : Principal Component Analysis.

Rotation Method : Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Source : Primary Study by Authors.

Table-7 : Component Transformation Matrix

Component	1	2
1	.811	.585
2	-.585	.811

Extraction Method : Principal Component Analysis.

Source : Primary Study by Authors.

Discussion

The entire scheme of priority sector lending in India is aimed at attaining greater allocational efficiency, thereby facilitating effective financial intermediation by banks (K.C. Chakraborty, 2012). Since banks act as key intermediaries in the complete delivery process, it is important that the resources should be allocated to the most deserving segments of the society and in an optimum manner. Both the efficiency and effectiveness of services are an important attribute in the delivery of these services by the banks. In this context, the revised guidelines were released on July 20, 2012. The current regulatory

framework for the priority sector lending has been satisfactory, and the market conditions are also supportive.

However, in the present study, there was found to be a limited understanding of the rural population of the various processing aspects of the application of the loans. Shortage of staff and training requirements were also found to be a major problem faced by the banks. Managers also found priority sector lending as additional baggage on their shoulders and consider it to be a non-lucrative area. They did not have any incentivisation for this process of priority sector lending and thus were not bent enough to increase these lending.

According to the bank managers, the primary delay for the sanction and disbursement of loans was attributed to the paucity of bank staff. The next underlying reason was the unnecessary queries held up for the loan being sanctioned by the bank. The third reason was the excessive documentation on the part of the bank. Similar problems were also put forward by the beneficiaries. The perspective of both the beneficiaries and the bank managers were similar for the service delivery mechanisms of the bank.

For the number of visits being made by the bank officials, there was found to be a greater degree of variation. For agricultural loans, the pre-sanctions visit increased thrice and more for most private sector managers. It was twice for the public sector managers.

For small-scale industrial loans, the visit was twice or more than the pre-sanction visit. For the post-sanctions, the visit was occasional. The pre-sanction visit for educational loan was once for the educational loan. For the post-sanctions, the number of visits increased from the quarterly to half-yearly. This clearly suggests that the pre-sanction visits were more in the agricultural and small-scale industrial loans. This can be attributed to the decreased awareness of the customers towards these loans and to the smaller number of branches available in the rural areas.

About the problems faced by the managers in sanctioning and disbursing loans, the major problem faced was permission for the guarantee followed by the installments to be given by the borrower. The next problem was the lack of awareness.

Most of the managers, when inquired about the regular payment of installments, responded positively. The reasons for low recovery were also inquired by the managers. The steps taken further to recover the loan amount, in case of default, were also listed. The action taken in case of default was primarily a

personal visit, followed by a notice issued by the bank. This is further followed by legal proceedings, compounded by ensuing standardized procedures to avail the guarantee from the lenders. A number of NPAs were found in the priority sector by the managers. The primary sector with low NPAs represent the educational sector, where increased unemployment levels acted as a triggering factor.

The reasons for the low recovery of loans from the beneficiaries were the defective project appraisal followed by the inadequacy of loan amounts. This was followed by the amount spent on social ceremonies, along with purchase of defective assets.

When inquired about the reasons for various problems faced by the beneficiaries, the primary reason sought was customer service and the time taken to sanction the loan, further this was amplified by the repayment schedule and the training of employees. This suggests that the managers are aware of the deficiencies in the service delivery processand, henceforth, adequate corrective steps are required to ensure the system is in place.

The managers in the majority also reported that the benefit of the priority sector was enjoyed by the actual beneficiaries. However, the beneficiaries nevertheless believe that the banks are unable to get to the most deserving beneficiaries in rural areas. The various steps undertaken by the bank to improve the priority sector lending programme mostly included the freedom to lend to the deserving candidate, followed by the increase in the incentive band and finally by advertisements and provision of trained staff to communicate effectively with the beneficiaries.

Conclusion and Suggestions

The study thus asserts the perception of bank managers in delivering services to the priority sector. It also envisages the role of the enablers of services in dealing with the lending of the priority sector. There exists a strong need to increase the number of contact points in the service delivery chain of the banks.The number of branches in the rural areas should also be increased to allow for greater penetration of the banks in these areas.The priority sector lending certificates can also assist in this process.The disbursement and monitoring procedures should be systemized and technologically upgraded so that human interventions are lessened, and more efficiency and effectiveness are generated in the service delivery processes.The buyer could also buy a priority sector lending certificate, which could increase the efficiency of

meeting the targets. The mechanism of credit delivery can be improved upon ensuring that credit reaches the intended beneficiaries. There should also be uniformity in priority sector lending requirements for all banks - domestic and foreign in the interest of equitable treatment and given the magnitude of the need to provide credit to underserved segments. Hence, all banks should be on par with the priority sector lending.

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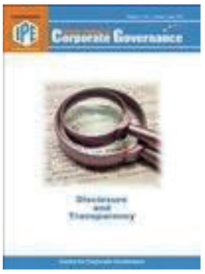

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The Journal of Institute of Public Enterprise

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Content

Research Paper

Case Study

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- Abstract should contain in brief – objectives, methodology and findings – with 5 to 6 key words.
- The author(s) present position, other affiliations, complete mailing address(es) (both postal and e-mail), mobile numbers should be provided.
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- Limit the levels of headings within an article to two at the most three.
- Avoid lengthy sub-headings.
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Quotations & Acronyms

- All quotations should be checked carefully for accuracy and should be unaltered except for ellipses and bracketed insertions.
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- The word per cent, not the symbol % should be used in the text.
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Anthology The Research

Sentiment Analysis: Construction and Applications of Sensitivity Index

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Abstract Sentiment Analysis is a quantitative tool used to assess the polarity of a document by the way of scaling on a multiway scale, it helps the analyst in finding author's attitude towards the topic. This paper is an attempt to fit in an index that can be used to rank references on a scale of 0 to 10, zero being least useful. We believe that is Sensitivity index is computed for a sufficiently large number of texts it can become instrumental in ranking texts according to their significance with respect to a certain topic. Assigning such ranks will fasten the pace of research and will be able to direct the researcher to the most relevant studies in research.

Keywords Sentiment Analysis, Polarity of Mentions, Indexation.

Introduction Sentiment Analysis has gained rapid popularity with the advent of machine learning, especially in areas of natural language processing. Though it is widely applied to understand the voice of customer and to read the survey responses, the essence of sentiment analysis is to classify the polarity of a given text at the level of document. Polarity of a document can be classified on a multiway scale or by scaling, on a multiway scale, search associated words are ranked on a scale of say 0 to 10 and while scaling, words commonly associated with having neutral, negative, or positive sentiments are scaled in order of severity of sentiment. Both these methods attach a value to the sentiment and makes it easy to work with it quantitatively. Sentiment analysis, opinion mining or emotional artificial intelligence as it may be referred to, helps the analyst in finding author's attitude towards the topic.

Aim of study The objective of this paper is to study of construction of the Sensitivity index.

Review of Literature Beginning with initial works of Turney (2002), Pang (2002) and moving on to more extensive later studies by various other authors and analysts we see an extensive use of techniques evolved in understanding movie reviews. We, however, seek to use the framework of this analysis for benefit of the researcher and research in varied fields. We believe that availability of such a framework would be instrumental in saving time and resources. If we have a framework that catches the sentiment or the intent of any writing it speeds up the research as it helps the researcher in zeroing in upon the most useful references. We propose to fit in an index that can be used to rank references on a scale of 0 to 10, zero being least useful. However, it must be understood that sentiments basically refer to feelings that are held in context, and thus any analysis of sentiments will turn out to be a value judgement. Even though we may assign numeric values to these judgements in the process of fitting an index, our intent remains only to rank them. This approach identifies more with the ordinal approaches as compared to the cardinal approaches.

Analysis

The first step in construction of the sensitivity index is to find out word sensitivity (S), for this we need to identify the target group of words/word and assign sensitivity value to it on a scale of 1 to 10 (one being the least sensitive or not sensitive). This gives us the Sensitivity scale {1 to 10} in whole numbers. The target word or the group of words is identified to be 'sensitive' only if the sensitivity value is greater than 1. Next, we assign a symbol 'S' to the sensitive word, where S is a direct function of assigned sensitivity say α.

$S = f(\ln\alpha)$

We take natural log of the sensitivity value so that at word sensitivity would be zero and in case α value is 10, sensitivity of the word would be pegged at 1. The value that 'word sensitivity' takes thus ranges from 0 to 1. We can similarly find out 'word sensitivity' for all the target words, where ranges between 1 to n and n is the total word count of the text. In context, one can also work out the range of word sensitivity for the text by finding out the lowest and highest values assumed by the target words. This range will give us the limits between which the text in question shows sensitivity.

To estimate the text sensitivity (TS), we begin by estimating the sensitive word count (SWC), which is merely a sum total of number of all the sensitive words found in the text.

$$SWC = \sum_{i>1} S_i$$

Given the Sensitive Word Count we can find out the Text Sensitivity Ratio by dividing the sensitive word count (SWC) by the total word count of the text (n).

$$TSR = \frac{\sum_{i>1} S_i}{n}$$

For an estimate of polarities of mention we will need to modify the sensitivity scale instead of assigning values between {1 to 10} the values will need to range between {-10 to +10} where 0 does not belong to the set. The modified scale will thus be

$$(-10\ to + 10), \quad \forall\ 0 \notin (-10\ to + 10)$$

Such an exercise, however, calls for a normalization of data before we compute the word sensitivity value.

Estimating the Sensitivity Index for a text (SI) can be done by taking a compendium of sensitivity ratios (SR) for different attributes of the text

$$SI = \frac{2}{3}(Text\ SR) + \frac{1}{3}\left(\left(\frac{1}{2}(Title\ SR) + \frac{1}{4}(Comments\ SR) + \frac{1}{4}(References\ SR)\right)\right)$$

Here we take simple arithmetic mean across the sensitivity ratio of the text, title, comments received on the text and the references as listed by the author. We are assigning a weight of 2/3 to the sensitivity ratio of the text because it is the text that is being referred to and is most important to the researcher, but other attributes of the writing cannot be ignored, for instance, title shows the intent of the author and should be looked into. Similarly, the comments that are received on the text show how the reader takes to the text and what feelings are evoked in the mind of reader and therefore the sensitivity ratio of the comments must be looked into. Likewise, the sensitivity ratio of the references used by the author are important.

Strengths and Problem Areas of The Sensitivity Index

While constructing the sensitivity index we took care to formulate the index in a manner that it remains additively decomposable. That is, its components can be separately estimated. This gives us the benefit of being able to identify the sensitivity of the title, the text, and the references separately. Our scaling is based on widely used and acknowledged Cantril's index, that assigns sensitivity on a scale of 1 to 10. This keeps scaling easy and research friendly and assigns a value of zero to word sensitivity when the assigned sensitivity is 1. Further, all the components of the index have face value, moreover the index can be validated using any target text.

The problem areas as we have identified so far are that this index is based on manual assignment of value of sensitivity and will thus attain different values on being run by different researchers. To counter this problem, we must focus on order in which the text is ranked with respect to other texts and not on the actual numeric value attained. As a corollary to the first point mentioned, this index is prone to researcher's biases. Manual computation also means that such indexing gets complicated in case of larger total word count. Here, we can explore the possibility of using artificial intelligence systems. Further the index may not always give correct results in case of polarities of mention.

Conclusion This paper introduces the Sensitivity index which if computed for a sufficiently large number of texts can become instrumental in ranking texts according to their significance with respect to a certain topic. Assigning such ranks will fasten the pace of research and will be able to direct the researcher to the most relevant studies in the area of research. With advent of AI, using this index does not look like too distant a possibility. As long as we keep a track of the negatives mentioned and remember that sentiment analysis and the sensitivity index is an offshoot of 'non computable' value judgements we should be able to use the index with comfort and for benefit of research.

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Editorial

The “International Journal of Development Studies and Research” is the flagship journal of VL Media Solutions' Social Science Research division. Papers from Economics, Political Sciences, History, Geography and Media Studies are being accepted for publication in the journal. We are currently receiving a variety of research papers from authors from various institutions both within and outside the country. The selected papers are published in the journal after a comprehensive analysis. So far, the house has published the journal quarterly without any break. This has benefited our contributors as well as the end users of the journal. Mr. Tiwari, the journal's publisher, deserves a lot of credit for this and his contribution towards promoting high-quality research is praiseworthy.

Let me express my heartfelt gratitude to all of my research students who worked tirelessly to complete their research papers on such a short notice for this special occasion. I also want to acknowledge my fellow reviewers and the journal's editorial board for their important contributions.

Prof.Gh. Mohammad Bhat
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Contents

COVID-19, Reverse Migration and Child Labour: Insights from a Primary Survey

Shirin Akhter[1] and Ganita Bhupal[2]

Abstract

COVID-19 pandemic imposed a need for unplanned reverse migration on workers working in the unorganized, informal sectors of the economy. The greatest exodus of the century left us thinking about our response to the pandemic and the inclusivity of living spaces that we have created. This study is an outcome of the feeling that though this reverse migration and the problems it caused are well documented there is a need to go beyond the process of migration and understand the process of settling down of workers in the rural economy. How the loss of jobs and income affected the individual and the families, what happened when these workers reached back their native village, what happened to various inequalities including the intergenerational inequalities and what have been the coping mechanisms of people. This paper is based on preliminary results from a primary survey of about 160 respondents who had migrated back to their village from various urban centers across the country. We try to look at various ways in which lives of these reverse migrants have changed and to understand their response to the pandemic. The study finds a sudden increase in incidence of child labour amongst the families of the respondents. We find that the pandemic and our response to it has disproportionately harmed vulnerable groups like women and the children. This paper is a call for the need to make more inclusive societies and an unambiguous call for higher public investments in health and education and Job creation.

Note: This paper was presented in the tenth annual conference of the Indian Health Economics and Policy Association on Sectoral Impacts of COVID 19 Pandemic in India, held in the online mode on 28th and 29th of January 2022.

Introduction

In March 2020, the government of India imposed a lock down on the entire country, which brought all economic activity and movement to a sudden halt. People who suffered

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most from this lockdown were the migrant workers who suddenly found themselves out of jobs, with no means of livelihood in the cities. The plight of these migrants was widely documented in the media, and the tragedies that migrants faced on their way back caused quite a furor. Hundreds and thousands of migrant workers were forced out of cities of their dreams and back into the villages that had once driven them out. The villages that had been left for sake of better livelihoods saw the distressed inhabitants returning to them, many of them having walked for miles to return.

This reverse migration of workers from cities to their native villages, was the greatest exodus of this century. It has left all of us thinking about the inclusivity of the living spaces that we have created. We have seen a lot being written on the 'movement' back to villages, the innumerous troubles on the way back, the inhuman isolation, a severe lack of resources, loss of jobs and incomes, lakhs being pushed into poverty. However, there is more that needs to be understood, we need to understand the plight of people after they reach and settle down in their respective villages. This understanding is important because it gives us an idea on how to alleviate these troubles.

Income inequalities that were already high, witnessed a widening of the wedge as the pandemic struck. Interestingly, this wedge only widened as the recovery began, with those in high income groups slowly reverting to their original income levels while those in the lower income groups were left struggling at decreased wages. Joblessness and lack of social security forced many people to sell whatever little assets they held. This distress sale of assets added to inequalities by the way of increasing wealth inequalities. Addition of wealth inequality to existing income inequality is only one part of the story, we must add to this the rising intergenerational inequalities as the children from low income families are withdrawn from education and pushed into work. These children lose the opportunity to become better earners tomorrow and the wedge deepens.

Literature Review

The literature on post pandemic economic distress from all across the world has unambiguously pointed towards the hardships that households have faced. There have been widespread instances of reduced spending on food, education and health. In a study across various countries Mouloudj et al. (2020), found that pandemic threatened food security in developing as well developed countries. Adjognon et.al(2021) found that food security in urban areas in Mali increased rapidly and at a higher rate than in rural areas, three months after the pandemic spread. From an online survey conducted among adult residents of Nigeria, Folayan et al.(2021) found that 56% were financially insecure, 20.4% had decreased their daily food intake and 90% reported a negative impact on their lives.

Onyema et. al (2020) collected data from students and teachers from various countries in the world and found that COVID-19 had adverse effects on learning outcomes, student enrolment, income and jobs. Mustafa (2020) notes that "...school closures in response to COVID-19 have shed light on various social and economic issues, including student debt, digital learning, food insecurity, and homelessness, as well as access to childcare,

health care, housing, internet, and disability services. The impact was more severe for disadvantaged children and their families."

This review of literature points towards the obvious facts of the pandemic causing a widespread economic and financial loss, education losses and their impacts on food security and well-being of households all over the world. Literature has also pointed out that vulnerable populations have suffered more, and their recovery has been slower.

In a study of impacts of lockdown on rural household's income in eastern India, Sonkar et.al (2022) find that there were a multitude of factors that influenced the income loss in rural India and that these factors included socio-economic and demographic factors. The impact of pandemic induced job loss was higher on migrant labour as compared to non-migrant labour and that though government assistance was timely there is requirement for its expansion in terms of coverage and outreach. Study of the World Bank group, undertaken by Bhattacharya and Roy (2021) on India's social safety response to COVID-19 reports that the existing government support is more in rural areas as compared to that available in the urban areas. This study also reports that, "… between May and August 2020, more than 87% of India's poorest households reported receiving at least one benefit – food or cash under the PMGKY; nearly 74% of all households received food through PDS allocations; 40% of households received cash transfers."

The dip in incomes, sale of assets, huge out of pocket expenditure on COVID and other related medical expenditure pushed people close to the poverty threshold into poverty and those already below poverty line deeper into poverty. Further, the evidence from share markets show that the share of rich and ultra-rich went up, not only in India but also globally. Following CMIE, unemployment went up to 23.5 percent in April 2020 and remained at 21.7 percent in May and though it started tapering off by June, the damage caused was irreversible.

Objectives and Methodology

This is an ongoing study, and we intend to build up upon it. This paper is derived from the preliminary analysis of data and our understanding of the responses. Data shows that as a part of survival strategies from the job loss that was caused by the pandemic, people were forced to accept lower wages and longer working hours. Most women in the sample failed to find jobs and the children were pulled out of education and sent to work. Looking across categories of gender, religion and caste we find that the weaker category is more severely hit in terms of income loss and the recovery in terms of finding it back is slower. However, the focus of present paper remains on the increase in incidence of child labour. We see this increase in child labour as one of the offshoots of pandemic, reverse migration, loss of jobs and decreased family incomes.

This study is based on a primary survey that was conducted primarily to understand the conditions under which migrant workers and their families are subjected to live. Our objective is to understand the survival strategies of such households and look into how they cope up with sudden loss of income earning opportunities. To the best of

our knowledge, the data on returning migrants is sparse and studies which look at the survival strategies post lock down are few. The contribution of this study, therefore, lies in the collection of primary data from the migrant workers and analyzing their survival strategies after job loss. We also seek to find out how these survival strategies further add to the troubles and hurt of migrant workers. The methodology of analysis is working with averages and means and trying to read trends that the data shows.

Description of the survey and data

With an intention of getting close to the ground reality we conducted a primary survey of some 160 migrant workers who had returned starting the first lockdown in the month of March 2019 and were still returning in the months of August and September 2021, when this survey was conducted. These workers had returned from the metros of Delhi-NCR, Mumbai, Ludhiana and Ahmedabad to their native village in UP. This survey was conducted with help of locally based surveyor. Households were selected from Nasirabad, which is a village in Raebareli district of Uttar Pradesh. The survey included questions about migration status, number of family members, wages and job description pre and post lock down, economic conditions and what possible coping strategies the households used.

We tried to look into how migration affected the socio-economic conditions of women and children, primarily the children who were duly enrolled with the formal education system in the pre COVID times. On return to villages these children were either withdrawn from the schools they were enrolled in or they simply stopped attending classes. In either case the children suffered a heavy loss in generation of capabilities, but loss of formal education is not the only loss that these children suffered, most of these children were put to work for petty wages. This study looks into the multitude of losses that these children suffer and the losses that they will suffer over time. The respondents were extensively interviewed on the number of children and the education of children. Besides demographic details, questions on income, expenditure and other socio-economic factors, we collected data on the number of children being sent to schools and on incidence of child labour in the families. Further, this data was collected for pre COVID and post migration times so that we could compare and contrast the details and find out the extent of damage.

The demographic details of the data are as follows; we interviewed both male and female migrants who had come back to the village, 36% of the respondents were females. The sample we surveyed had a mix of Hindu and Muslim population as these are the only religions being followed by people living in Nasirabad. 20% of the sample were Muslims and the remaining 80% were Hindus. So far as the caste distribution is concerned 12% of the respondents were OBCs, 66% were from the scheduled castes and 22% of the respondents were general category respondents. Since as a part of sample design, only the migrant workers who had returned from cities were surveyed, all the respondents lie in the working age group. The following histogram gives the distribution of age of respondents.

The sample cuts across education levels, but 59% of the respondents are in two groups with educational attainment between class 5 and class 12th. We also see 29% of respondents with undergraduate level of education but this 29% of the sample comprises of 78% women, who either get low quality private education or get degrees from correspondence courses for want of anything better to do or get enrolled in these courses while waiting for their parents to find suitable matches for them. Further, the entire 3% of post graduate population is women. Sadly, these degrees are hardly employable and fail to endow the candidates with qualifications suitable for the job market. Most of the respondents with these degrees fail to secure well-paying jobs even when they migrate to cities and find themselves too qualified to pick up low paying jobs, the likes of which are available in the informal rural market. The point of emphasis here is the fact that despite higher levels of educational attainments the income earning capacities of such candidates do not improve.

Results from primary analysis

The data shows that there was a decline in the wage rates across sample, the average wage post reverse migration declined for all the categories in the sample. Family wage and the daily wage earned went down. The number of hours worked also underwent a change, though we were unable to see a trend but what is to be noted is the fact that number of hours worked by the respondents changed, increasing for those with lower levels of education as they had to put in more hours of work to ensure sustenance and decreasing for those who had higher educational qualifications as there were no jobs suitable for their qualifications. Further, the relatively more qualified workers were reluctant to pick up the jobs that offered lower wages and they resorted to working for fewer numbers of hours.

Many respondents failed to secure a job for themselves on return to their native village. The men who could not secure any employment during this period turned to self-employment or small businesses, with petty earnings. Women found it harder to find jobs post reverse migration. Some women were able to get part time jobs like house helps but the remuneration was almost nil. Often being able to work for an hour a day and earning as less as Rs 20 in a day, women who were working for a decent wage in cities found it impossible to manage in the village. To be mentioned separately is the case of more educated women who were working in cities in offices in the informal sector but lost the job due to pandemic. These women were not able to pick up the type of work that other 'not educated' women were able to and thus were left incomeless.

Living with abysmally low family incomes, impossibility of earning themselves and faced with a highly patriarchal society women who migrated back to villages found themselves in a multiple bind. Distress sale of assets was reported all across the households, more so if a family member fell ill. Unable to earn and having used up almost all their savings in the process of returning to villages, out of pocket medical expenses forced people to sell whatever little assets they had. All this hints at the severity of the economic crisis. The following graph shows how the total family income dipped

in the face of reverse migration. The average wage decreased for each subgroup of the respondents, but the decrease was most severe for women, minorities and the respondents from schedule castes.

Daily wage of the respondents also fell for the entire sample. However, there are noticeable mentions here, for instance average daily wage for women fell from Rs 372 to Rs 89 while for men it fell from Rs 398 to Rs 192. For the sample of upper caste Hindu respondents, pre COVID daily wage averaged at Rs 410, which fell to Rs 257 on migrating back to village. This is to be compared with pre and post reverse migration average daily wage earned by the Muslim respondents, that stood at Rs 300 and Rs 146 respectively and the respondents from schedule casts earning Rs 324 and Rs 175 in the two respective periods. It is important to see that the pre COVID wages and the average wages on return to villages is higher for the upper caste Hindu male respondents as compared with all other categories. Not only is the difference in pre COVID wages for different categories significant, the differences in fall in wages is also significant. The women, the minorities and the scheduled casts were more severely hit, and their recovery was harder.

The loss in income was sever in nature, families were displaced, and individuals were forced to look for jobs in the rural agricultural markets that were already overcrowded. Needless to say, jobs were difficult to come by and the payments were abysmal. Data shows that men were in a better position to find jobs as compared to women and we were told by many women respondents that in face of lack of jobs they were advised against looking for jobs by their families and were expected to be satisfied if their husbands could find jobs. As a coping mechanism, women started relying on their children to earn.

The fact that pandemic had induced schools to go online did not help either. The children were hardly able to attend classes, the reasons ranged from unavailability of mobiles and laptops to that of books and notebooks not being available. Internet connectivity remained a big problem and the teachers were not accessible to most of the students. Along with the fact that most of the younger kids were not comfortable with the use of technology kids got pushed out of 'online' formal education. The parents, even when acting perfectly rationally, saw children sitting ideally at home and faced with shortage of jobs and money started sending them to work. The incidence of child labour suddenly increased and kids were withdrawn from education.

If we compare the incidence of child education pre and post reverse migration, we see that number of children not getting any formal education increased from 17% to 31%. Though we see an increase in number of children not getting formal education, a few qualifications are in place, one is that in the pre COVID-19 times, all 17% of children not going to schools were the children below 5 years of age, while post reverse migration 14% families were forced to withdraw their children from schools. Yet, this remains only the tip of the iceberg, the real problem is depicted by the fact in pre COVID-19 times none of these families were engaging in child labour, but because of reverse migration 44% of the families had to put their children to work. In context of increasing incidence

of child labour, it needs to be mentioned that a multitude of factors played a role, women finding it difficult to earn and family incomes decreasing acted as push factors, the online classes and exams also worked to set up the stage against children but the pulling factor that actually pulled kids out of schools and homes into to the job market became the fact that employers preferred to hire children, especially for unskilled, non-technical, physical labour using jobs because of the low wages that need to be paid to the children.

The exodus that we witnessed and the troubles that it caused, not withstanding, and to our surprise, on being asked if they intend to go back to the cities 80% of the respondents replied in affirmative. 100% of the women in sample said they would go back to cities whenever they were able to. This huge positive response to our question on the intent of returning to cities that treated the migrants so roughly, should however, be analyzed in light of the fact that despite the sudden need to return and the problems on the way, workers on returning back faced scarcities of all sorts and realized that the village economy simply could not host all the migrants if they choose to return all at once. The women, who were used to living in nuclear families, making their own decisions and with access to money of their own, found it difficult to make adjustments with the heavily patriarchal society in villages. They found themselves deprived of money, decision making abilities and lack of job availability made problems worse. To compound the problems was the fact of children's education getting spoilt and with it the possibility of a better future.

The other side of the story is related by the 20% respondents who declared that they do not want to go back to the cities. 83% of these respondents are above 45 years of age and do not see any future on returning back. Besides, these people feel that even after having spent 20 to 25 years of their most productive working lives in cities, the cities failed to offer them food and shelter in times of need and therefore it is not worth going back to cities. 67% of these respondents were also able to find jobs and payments that they were able to manage with and saw no immediate need to return to cities.

Conclusions

Overall results suggest that the loss of income is greater for women and in most cases women have not been able to find suitable employment post COVID. We also find that minorities are hit harder, and the recovery is slower as compared to other surveyed households. This is despite the fact 100% of poor households in the area have reported having received government aid in at least one form; they have either received food or cash. These families have also been active recipient of LPG cylinders and during the period of survey have been in the process of receiving grants from government for construction of houses. Though this scheme was linked to actual construction of houses and money was released on confirmation of construction such a scheme is expansionary in nature and induced flow of money in the economy. None of the respondents or the surveyor denied help and assistance from the union government and the state government. Also, our results collate with other studies that we have quoted and cited in saying that there was in time help from various agencies, especially the government but this assistance

was not sufficient to lift people out of penury. COVID-19 pushed people into poverty for reasons more than one.

All in all, we see that the pandemic and our response to it has disproportionately harmed vulnerable groups. We must understand how to make more inclusive societies, pandemic has shown how a handful make huge profits at the cost of a larger group. We need to work on ways to charge higher taxes from profit earners. Moreover, this scenario has been an unambiguous call for higher public investments in health and education and Job creation. The problems created by this pandemic are severe and sticky, they will only get worse with time. It is not wise to just wish them away, we, as an economy, need inclusive policies if we do not want years of progress and development wasted. The margins and the vulnerable sections of the society need to be taken care of. This article is a call for a two pronged affirmative action that ensures an increase in public expenditure on health and education so as to benefit more and more people, to provide social security to the needy and to actively engage in job creation.

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CONTENTS

Manufacturing Sector Employment in India: A review of literature

Shirin Akhter*, Simin Akhter Naqvi**

Introduction

The Indian manufacturing sector, since independence, has come a long way, having traversed from building industrial foundations in 1950's and early 1960's, to the license–permit Raj prevailing through mid-60s to early-80s, followed by a phase of liberalization in the 1990's having come to the present phase of globalisation characterized by a continued confident opening up of the economy, despite having been faced with one crisis after another. India's economic growth in last three decades has been led by the growth of service sector. GDP growth during the first decade of the present century (1999-2000 to 2011-12) averaged 7.3 percent per annum. Recently, this process has slowed down substantially, falling to 4% in 2019-20, against 4.2 percent estimated earlier. However, it remains service-led, with the sector averaging at 6.9 percent (Economic Survey, 2019-20).

India has a large amount of surplus low-skilled labour in agriculture (Subramanian and Felman, 2019) and this must be moved to productive employment in non-agricultural activities if faster and sustainable growth is to be achieved. The experience of various countries of the world has demonstrated how only an expanding manufacturing sector can absorb this surplus labour (Dreze and Sen, 2013). Many economists point out that shifts in demand, both domestic and global, have changed the composition of the production basket, with wage goods comprising as much as 49% of all demand, which means growth of traditional manufacturing depending on technology intensive exports can no longer absorb surplus agricultural labour which exists in most developing countries, including India (Todaro and Smith, 2009). Another argument is that technological change in the

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factory sector of manufacturing has reduced the labour intensity of production over time and therefore this sector has increasingly limited capacity to absorb the large size of surplus labour available. The fact that most segments of industry are running at low rates of capacity utilization due to both demand and supply side constraints aggravates the problem (Chand Sarat C., 2022). Empirically, structural change of this kind is associated with successful transformation of the economy from traditional to modern. Development, besides many other things also means labour reallocation from agricultural to manufacturing in early stages of development and from agriculture and manufacturing to services sector in the later stages. Some economists argue that due to technological advancements, some services have actually taken on the characteristics of manufacturing (R. Nagaraj, 2017). This has become possible due to advances in digital technology in computation, information, and communication technology. Given the pattern of technological changes, newer technology needs lower labour intensity and creates an ever increasing demand for capital and skill intensity in manufacturing. Manufacturing needs a number of ancillary and feeder services as inputs and industrial firms outsource most of these services from service enterprises. This means a large part of employment previously counted as manufacturing or industrial employment is now included as employment in services. We, therefore need to be more careful in interpreting industrial employment data, particularly since manufacturing and service sectors have strong backward and forward linkages, especially in a developing economy; linkages that propel the economy.

Dualism in the Indian Manufacturing Sector

Looking at India's development experience in recent times, it can be observed that India's economy has been and remains, dualistic in nature. Dualism refers to the formal/organized sector coexisting with a large unorganized sector. The formal sector is defined by the Factories Act as all those manufacturing units which cover all factories employing 10 or more workers when using power, or 20 or more workers without using power. Remaining manufacturing units are designated as informal/unorganized units. The unorganized sector is further divided into two sub categories, Own Account Manufacturing Enterprises (OAME) and Establishments. While the former are household units making use of family labour, the later employ at least one wage (hired) worker. The unorganized sector, in particular the household sector, accounts for a disproportionately large share of employment but a very small share of value added in manufacturing. It is quite clear that existence of dualism over the years has had significant implications on the welfare of this majority class employed with this sector. Notably, the value added per worker in the unorganized sector has been significantly lower than that in the organized sector, leading to inequalities of income and wealth. There is a pertinent need for putting in place economic and social welfare measures for this section of workers as it is the most vulnerable section of workers in the society.

The economy has witnessed a rapidly rising population and the much awaited demographic dividend has not yet been reaped in terms of productivity growth. For demographic dividend to materialise, the number of employed people needs to rise at a faster pace as compared to the rate of growth of overall population, so that the dependency

ratio falls and the savings-investment rate rises. In contrast, the dependency ratio in India has actually risen from 2.6 in in 1983 to 2.7 in 1999-2000 and to 2.8 in 2011-12 (Bloom, David E., 2011).

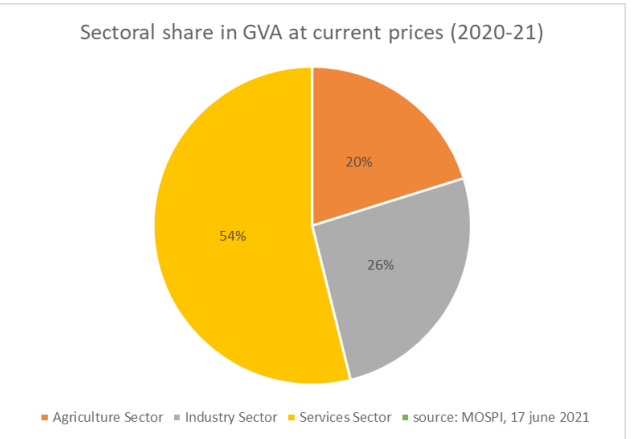
Human capital formation is an integral component of economic growth, especially because of the endogenous nature of investments in human capital. Public expenditure on health in India is only 1.3 percent of GDP while other countries spend several times more, this results in large out-of-pocket expenses by individuals and often is major reason behind households falling into poverty traps. Similarly, on the education front, right to education has emphasized only on student enrolment and not on quality of education. Quality of education in public schools has deteriorated over the years. Proper training of youth after their education is possible only with a joint collaboration of industry and government this is not an endeavour that could be successfully taken up by poor people living in poor economies. Moreover, estimates of women's contribution to output, not available as amply, need to be generated and made integral to the productivity debate. With a growing degree of feminization of the workforce, a better understanding of the gender distribution of work and wages and wage shares can help us devise more effective policies to help realize the demographic dividend better (*ibid*).

Structural Change in India's Economy

Manufacturing sector has a significant role to play in the structural transformation of an economy (Lewis, 1954). Post 1990s, the manufacturing sector has no longer been an important driver of economic growth as it once was (Szirmai, 2015). As shown in figure1 the sectoral share of industrial sector in Gross Valued Added (GVA) of India is 26 percent. According to Ghose (2020) 'analysis of past experiences of economic development yields four important stylised facts about the structure of low-income economies and its evolution in the course of development':

- At low levels of per capita income, a very large part of the working population is engaged in agriculture, a small part is engaged in services and an even smaller part is engaged in manufacturing.
- At low levels of per capita income, output per worker is lowest in agriculture and highest in services.
- As growth occurs and per capita income rises, the employment share of agriculture steadily declines the employment share of manufacturing moves along an inverted U-shaped trajectory and the employment share of services steadily increases.
- As growth occurred, labour productivity increased in all economic sectors but at different rates. It always increased more rapidly in manufacturing than in services

Figure 1: Sectoral share in Gross Valued Added



Clearly, unlike the expectations of the development discourses of 1950s and 1960s, workforce transformation from agriculture to non-agriculture and in particular to organized modern activities has been exceedingly slow and remains a major policy challenge. Although India's gross domestic product (GDP) growth rate since independence has consistently increased decade by decade, industry (including manufacturing and construction) accounts for only 25 per cent of GDP (in 1950, it was 8 per cent). In 2017, the manufacturing sector contributed only about 16 per cent in the GDP, stagnating since economic reforms began in 1991 (Mehrotra, 2020).

Recently it has become clear that developing countries are not able to raise share of manufacturing sector in either value added or employment (Rodrik, 2016). The shift in workforce from agriculture to the informal sector, mostly in construction or petty services such retail of domestic work (Basole et al., 2018) is a case in point. Analysts are more or less unanimous in the opinion that the organized manufacturing sector in India witnessed a long period of 'jobless growth' beginning, late 1980s (Nath, 2014). Various labour-intensive industries such as textiles and food products witnessed negative employment leading to large-scale retrenchment of workers. Between 1995-96 and 2001-02, 13 per cent of the workforce lost their jobs. Examining trends in working age population growth and employment growth for men and women in rural and urban areas in the period between 2011-12 and 2017-18, it is seen that working age population grew by 115.5 million but the labour force grew only by 7.7 million and the workforce actually shrank by 11.3 million (Table 1). Indicating a significant fall in the labour force

participation rate[1] (LFPR) as well as workforce participation rate[2] (WPR), and a sharp rise in the unemployment rate (Nath & Basole, 2020).

Table 1: India's Labour Market Since 2011-12 (Millions)

		2011-12	2017-18	2018-19
1	Working age population	853.4	968.9	986.3
2	Labour force	475	482.7	495.7
3	Employed	464.6	453.3	466.7
4	Unemployed [(2)-(3)]	10.4	29.4	29
5	Outside labour force [(1)-(2)]	378.4	486.2	490.7
		(Percent)		
1	Labour Force Participation Rate	55.7	49.8	50.3
2	Workforce Participation Rate	54.4	46.8	47.3
3	Unemployment Rate	2.2	6.1	5.8

Source: Azim Premji University, Report: State of Working India, 2020

Traditional models of structural transformation lay importance on surplus labour shifting from traditional agricultural sector to modern manufacturing sector, hence it is crucial to understand the role of manufacturing sector in the growth of the economy and to find out how employment may be generated at a faster rate in this major sector of the economy. Developing countries like India continue to try to work on manufacturing-led structural change, emphasising the need for a more nuanced understanding of what works and what does not work, at the policy level (Haraguchi N, 2018). In the process of transition from being an agriculture based economy to being a modern economy, India witnessed a decoupling of growth in GVA and employment which is a cause of concern. While this disconnect can partially be explained by the rising capital intensity of production, it can also be attributed to the fact that India has been unable to exploit its labour advantage to grow labour intensive industries (Kapoor, 2018).

Table 2 shows the share of manufacturing in value added and employment in India since the early 1980s. As can be seen, the sector has failed to expand by either measure. The share of employment of manufacturing sector has increased marginally during these

1 Workforce Participation Rate (WPR): WPR is defined as the percentage of employed persons in the total working age population (individuals aged 15 years and above). It is usually considered a better indicator of conditions in the labour market compared to the Unemployment Rate (UR) as UR can also fall without an increase in employment due to individuals dropping out of the labour force. WPR is calculated for both the Usual Status i.e. considering the 365 days period preceding the survey, and the Current Weekly Status i.e. considering the 7 days period preceding the survey.

2 Unemployment Rate (UR): UR is defined as the percentage of unemployed persons in the labour force (labour force includes those employed and those unemployed but looking for or available for work.

34 years of period and even there is slight decline in its share in the GDP of the country.

Table 2: Share of Manufacturing (Organized and Un-organized) in Employment and Value Added in India (1983-2015)

Year	Employment	Value-added
1983	10.6	17.3
1987	12.2	16.8
1993	10.6	16.5
1999	11	15.8
2004	12.3	16.4
2011	12.6	16.1
2017	12.1	14.9

Source: Based on data in National Sample Survey Employment–Unemployment Surveys, various years; World Development Indicators, various years

Employment in the unorganized manufacturing sector has increased at a slower pace as compared to the organized sector (Thomas, 2018). A recent paper (Basole & Narayan, 2020) with focus on the performance of the organized manufacturing sector in India for the last 34 years period (1982-83 to 2016-17) shows some interesting trends in the sector. The study is motivated by two questions. One, which periods in the recent past have seen a relatively better performance of the organized manufacturing sector? Second, which particular industries have performed relatively better in terms of growth and in job creation? Based on ASI data analysis of 55 industries in manufacturing sector the study derives the following main conclusions; manufacturing growth in employment in during these 34 years is much weaker compared to the growth of output, this means a large increase in labour productivity in this major industrial sector. The study shows that after a small initial fall in absolute employment till 1986, there was an increase till the mid 1990's. But there is a drastic fall in the employment in organized sector between 1995 and 2002. However, after 2006, employment in this sector grew again, mainly because of increase in the contract jobs in the sector. On the basis of this we can say that growth elasticity of employment has been low in manufacturing sector. Further, the higher capital intensity of production is one of the reasons for the disconnect observed between employment and GVA growth as it has meant that fewer additional workers have been added to the manufacturing sector. There is a rising capital intensity in the manufacturing sector in relatively more labour-intensive as well as in the relatively more capital-intensive industries. This is expected to increase the labour productivity. According to this study between 1983 and 2017, the labour productivity in India's manufacturing sector went up by six times. However, the major benefit of this increase, in terms of changing share of factor income is appropriated by the capital owners of this sector.

On average the real wage rate increased at the rate of 1.4% per annum in real terms, while productivity rose by 5.5% per annum in real terms during this period. This indicates a major shift in the distribution of factors income in favour of capital. The growing

divergence between productivity and wages implied a falling share of labour in value added. This fall in the share of wages in gross value added in organized manufacturing sector is seen in both real as well as nominal terms. Further, decline in real wage share is steeper than the nominal decline due to the fact that the CPI shows divergence from the WPI over time (Basole & Narayan, 2020). Studies show that the capital intensity of production across the manufacturing sector has been rising over time (Kapoor, 2018). This means that capital-labour ratio has increased in capital-intensive as well as labour-intensive indsutreis (Sen & Das, 2015). This points to a greater contribution of within industry factors. The increase has been particularly steep since 2004-05. The higher capital intesnity of production is one of the reasons for the disconnect observed between employment and GVA growth as it indicates that fewer additional workers have been added to the manufacturing sector. Even within the organized sector, there has been a dramatic increase in the share of informal and contract workers (that is, those who are excluded from the core labour laws) as per the most recent estimate, close to 60 per cent of workers in the organized sector are informal worker, and in the organized factory sector alone, the share of casual workers has increased from about 13 to 35 per cent between 1993-4 and 2011-12 (Jha, 2016).

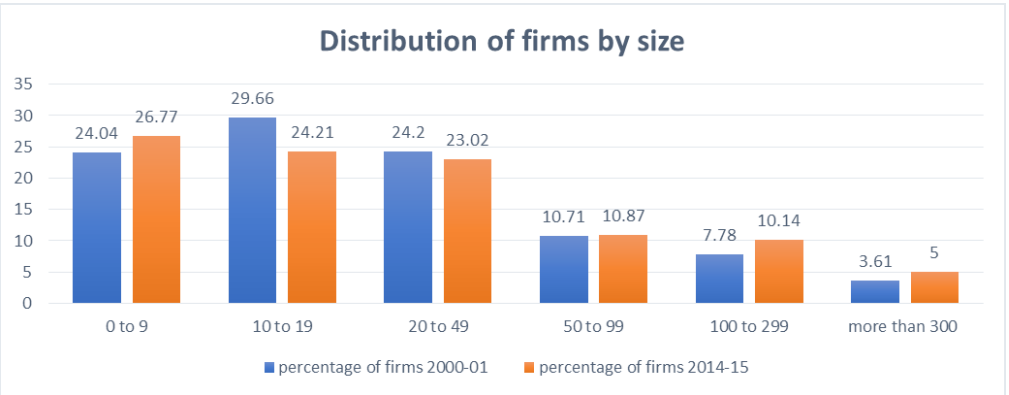
On the basis of ASI data a rising trend has been observed in the share of contract workers in India's organized manufacturing sector (Basole & Narayan, 2020). To be noted here is the fact that the un-organized sector is already employing almost all the workers on the contract basis. This trend of rising contractualization of jobs in organized sector shows that state has given its approval to this form of employment even though labour laws prohibit the large firms from employing contract workers above a certain limit and in specific categories of jobs. Despite so many concessions being given to the capital, return on Capital Employed (ROCE) for the manufacturing sector has declined substantially declined during the period from 2011-12 to 2015-16. From 8.1 per cent in 2011-12, the peak of the capex boom period, the ROCE of manufacturing sector fell to 3.8 per cent in 2015-16. The fall was seen across all manufacturing industries, with the worst sufferers being metals, textiles, steel and automobiles. Falling returns and low-capacity utilization levels show lack of incentive for manufacturers to invest in capacity creation (Thomas, J.J., 2017).

Since after independence, the policy framework in India has supported small and medium enterprises (SMEs) as the policy makers believed that small scale enterprises would use labour-intensive methods of production, thereby generating faster employment. The Small-Scale Reservation Policy (1967), which reserved production of some goods for small-scale units, [3] was the milestone of India's manufacturing policy for 60 years. However, between 1997 and 2007, 600 out of more than 1,000 items were de-reserved as it was argued that small firms making reserved products opposed growing or upgrading their technology as they would have to stop making those products if their investment grew beyond the permissible limits for small-scale industry.

3 These were originally defined as firms with up to Rs 500,000 in fixed assets and fewer than 50 employees.

In their study Basole and Narayan, 2020 (figure 1) present the distribution of firms by size for the years 2000-01 and 2014- 15. They divide firms into six bins, 0-9; 10-19; 20-49; 50-99; 100-299 and 300+ workers. In 2014-15, small firms (i.e., those hiring less than 50 workers) accounted for over 50% of total firms in manufacturing sector. The large firms i.e., those hiring more than 100 workers accounted for a smaller share of the distribution. The share of mid-sized firms (50-99 workers) was also not found to be significant. Thus, there is no 'missing middle' in the sense of a bimodal distribution (Kapoor, 2018). Importantly, the firm size distribution has not altered over the last fifteen years. From this it is evident that the proliferation of small firms is a phenomenon which has persisted over time. It shows the significance of ancillary industries in the manufacturing sector and importance of informal sector, as most of these small industries are the part of unorganized sector, which contributes a significant portion of employment in India.

Figure 1: Distribution of firms by size



Source: Basole and Narayan, 2020

Table 4 and figure 2 show the total employment and distribution of employment across firms of different sizes. We find that the share of small enterprises in total manufacturing employment has been smaller than that of large enterprises in the last decade. More significantly, the share of small enterprises in total employment has fallen over this period, while that of large firms has risen. It is evident from this data that the trend growth rate of employment in small firms is significantly lower than that in larger firms (Table 5). Importantly, net changes in employment and growth rates tend to hide a considerable amount of job creation and destruction. Although conventional wisdom on firm dynamics says that most job creation comes from small enterprises, recent literature has shown that job destruction is equally important in their case and this perhaps explains why these enterprises hardly grow over time (Li & Rama, 2012). Thus, the general claim that SMEs are the main creators of jobs in net terms is questionable. The study also examines the distribution of wages of production workers across firms of different sizes and trends in growth of employment by size bins in Tables 3 & 4. The study finds that

smaller firms are able to increase their wages at fast rate and as higher the size of the firms and in these firms more is the growth of wages of the workers. It shows the higher productivity of labour in this sector. On the other hand there is an increase in the contract workers share in the total workers.

Table 3: Trend growth rate of employment by size bins (2000-01 to 2014-15, % per annum)				
10-19 workers	20-49 workers	50-99 workers	100-299 workers	300 & above
1.22	2.69	3.49	4.92	5.68
Source: ASI unit data (several years)				

Table 4: Average Annual Worker Wages (in Rs.)

Size Bin	**2000-01**	**2014-15**
10-19 workers	25105.04	86423
20-49 workers	27122.61	95029.56
50-99 workers	28952.32	101577.1
100-299 workers	35589.92	111724
300+ workers	61022.92	152626.7

Source: ASI unit data (several years)

Employment Elasticity in Organized manufacturing

A study (Alivelu, Michele, & Nobuya, 2015) has analyzed the 'employment elasticity' of different sub-sectors during the period of 1990- 2017. This study shows the pattern of employment creation in different periods and for different sectors; and to understand the trends of growth in employment of the manufacturing sector. Based on the data availability of the different industries in the organized manufacturing sector, this study analyzes the performance of 17 industries in organized manufacturing sector in India. Then these sub-sectors are further categorized into low, medium, and high technology industries.

Table 5: Low, Medium and High Technology Industries

Technology	Industries
Low	Food and beverages, tobacco products, textiles, apparel, wood products, paper and paper products and manufacture of furniture
Medium	Leather, rubber and plastic products, coke and refined petroleum, non-metallic mineral products, basic metals and fabricated metals
High	Chemicals and chemical products, machinery and equipment, electrical machinery and apparatus, transport equipment, medical and precision apparatus, motor vehicles

Source : UNIDO Classification, 2016

The study shows that:

- a. Out of the seven industries in the low-technology group, the average annual growth rate of TFP of tobacco, furniture and wearing apparel were negative between 1980-81 and 2008-09. For all low-technology industries except textiles, the average annual growth rate of capital-labour ratio increased in the post-reform period. On the other hand, the average annual growth rate of labour productivity decreased for all industries during the post-reform period with the exception of textiles.
- b. The average annual growth rate of labour productivity registered an increase in all industries during the post-reform period. On the average annual growth rate of labour productivity registered an increase in all industries during the post-reform period. On the other hand, the average annual growth rate of capital labour ratio of all industries, except coke and refined petroleum registered a decline in the post-reform period.
- c. Among the high-technology industries, the average annual growth rate of labour productivity increased for all industries, except for chemicals and chemical products in the post-reform period. Of the five industries in this category, the average annual growth rate of capital-labour ratio registered a decline in three industries in the post-reform period. The increase appears to be steeper over the latter half of the decade.

Small size units are dominating Indian Manufacturing

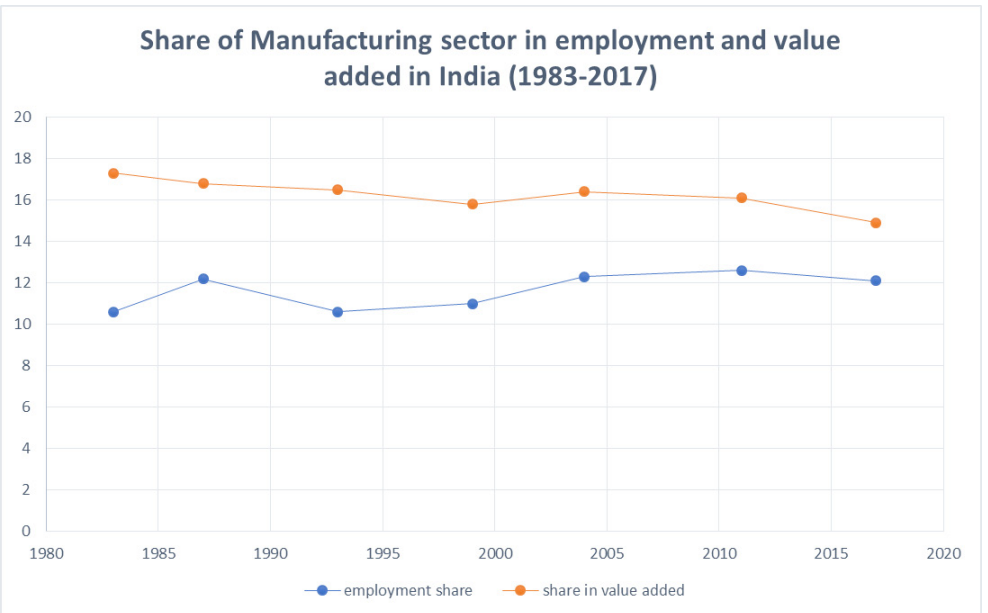
Several unusual characteristics of India's pattern of development appear to be symptomatic of deeper structural distortions in the economy, potentially explaining why India's manufacturing is lagging. These features include relatively high capital intensity in the organized sector and an extraordinarily large share of overall manufacturing employment in micro-enterprises, most of which are in the informal sector. Perhaps the most dominant characteristic of India's manufacturing sector is the extraordinarily small scale of establishments relative to any OECD or major emerging country when measured in terms of employment and output. About 87% of manufacturing\employment is in micro-enterprises of less than 10 employees, a smallness of scale that is unmatched, with the closest comparator being Korea, where less than half of employment is in micro-enterprises.

The recent growth in the economy in the second decade of 21st century it has been clear from the data that growth has benefited industries which depend more on capital and professional employees in preference to unskilled/low professional employees. This fact blended with the increasing capital intensity of production over the decade partly explains the contribution of the manufacturing sector to employment generation.

Although, rising capital intensity is an indicator of technological transformation, as countries use more capital-intensive techniques as they get richer, it has been shown that India uses more capital-intensive techniques of production in manufacturing than countries at similar level of development and similar factor endowments (Hasan et al. 2013). It is normally understood that India's rigid labour regulations and employment protection legislation has reduced the incentive of firms to hire workers on permanent contracts and pushed them towards more capital-intensive modes of production.

Capital intensity is defined as the ratio of real fixed capital to total persons engaged. Capital is measured by fixed capital as reported in ASI. This represents the depreciated value of fixed assets owned by the factory on the closing day of the accounting year. It is deflated using WPI for machinery and equipment. Total persons engaged includes workers (both directly employed and employed through contractors), employees other than workers (supervisory, managerial, and other employees) and unpaid family members/ proprietor etc. The rising capital intensity of production in India's manufacturing sector since 1980 is well established in the literature (Hasan, Robert, & Jandoc, 2012) (Das & Kalita, 2010). Fig. 3 indicates that the average capital intensity of production has risen over the last decade too.

Fig 3. Capital Intensity of Production



Importantly, this study classifies industries on the basis of their capital intensity, and it shows that this ratio has increased not just in capital intensive but also labour-intensive industries. Rising capital intensity of production, especially in labour intensive industries, is a cause of concern as it raises doubts about the capacity of the manufacturing sector to absorb labour. The rising capital intensity is reflective of technological transformation, as countries use more capital-intensive techniques as they get richer, it has been shown that India uses more capital-intensive techniques of production in manufacturing than countries at similar level of development and similar factor endowments (Hasan, et al. 2012).

The structure of employment in India has also changed over time. If we compare the two periods of last 28 years between 1993-02 and 2002- 12 then employment growth shows a decline in the second period. The agriculture still employs 48 percent of total persons employed in 2011and is the largest employer, its share in GDP is just around 14 percent. On the contrary, services which employ just 29 percent of total persons employed, its share in GDP has reached almost 57 percent. In construction, though the share in employment increased more than three times, its share in GDP increased marginally from around 6.6% to around 8% only indicating low labor productivity growth.

Table 6: Growth rate of GDP and Employment -Broad Sectors

Broad Sector/Year	**1993-94to 2011-12**		**1993-94 to 2002-03**		**2003-04 to 2011-12**	
	GDP	Empt.	GDP	Empt	GDP	Empt
Agriculture, Hunting, Forestry and Fishing	2.10	0.69	4.18	-1.12	3.08	-0.17
Mining and Quarrying	4.50	- 0.51	4.08	0.87	4.30	0.15
Manufacturing	6.55	2.23	8.51	1.23	7.48	1.75
Electricity, Gas and Water Supply	5.62	-1.03	6.61	2.84	6.09	0.80

Source: (Aggarwal, 2016)

Though the shares seem to have changed uniformly, growth in GDP and employment during the two sub periods (Table 6) is not uniform. GDP growth in the second sub-period is faster at 7.93% as compared to 5.69% in the first period of 1993-94 to 2002-03. The growth in GDP is led by services and manufacturing in the first period but the spurt is due to construction services and manufacturing in the second period. Growth in employment, however, has taken a different path. Not only the growth in employment in the second period of 2003-04 to 2011-12 is slower at 1%, it is completely construction sector drive. It is because of this phenomenon that economists have defined this phase as a 'jobless' growth phase as manufacturing and services both failed to absorb the labor which was displaced by agriculture (Aggarwal, 2016). Therefore, the concern of the Indian policy makers is twofold; how to increase the share of manufacturing in GDP and how to

create jobs such that increasingly displaced persons from agriculture (and the addition to labor force) are absorbed in better quality jobs. The same is necessary also because a very large number of recently created jobs in India are in the 'informal' sector and are largely low-skill, low-wage, and low-productivity jobs.

According to the NSSO survey on Unincorporated Non-agricultural Enterprises (excluding construction) total employment in unregistered manufacturing increased from 34.8 million in November 2010 to 36.04 million in 2015-16, a meagre increase of 1.24 million in five years. The rise has been higher in OAMEs to the tune of 1.84 million. Perhaps the more important fact is employment declined in establishments that are relatively larger in size within the unregistered segment and employ one to ten hired workers, have employed 0.67 million less workers during the same period. Therefore, the rise in employment in the organized manufacturing sector was primarily driven by contractualisation and in the unorganized segment, employment increase was accompanied by fragmentation of productive activities. The situation has further worsened because of demonetisation and introduction of GST, causing suffocating effects on the unorganized segment of the economy that employs 92.8 per cent of India's workforce. (Roy, 2021)

In fact, the labour cost is not the only factor that gives competitive advantage to a firm, but it is also the most general component that a producer factors in apart from other common determinants that are more specific. Rise in contractualization in the organized manufacturing is simply a response to such needs. Producers are increasingly relying on tiny enterprises in the informal segment where wages can be pushed below the value of labour power thus garnering super profits. But such strategy of depressing wages could not be unique for any particular country. Changes and adopting the new four Labour Codes, 2020 in hope of reducing the cost of labour is the part of this strategy which these developing countries are adopting and compromising with the labour rights. But this race to bottom will not benefit these countries in the long run as it will widen the gap between labour and capital income further. As a result, the effective demand will get depressed which can finally contract the demand and market in these countries.

Conclusions

Slow pace of structural change means slow pace of advancement in employment conditions. Structural change in India, primarily the shift towards service led growth, has been an exception to the rule, if one looks at developing countries in general. Labour movement has been occurring mostly from agriculture to construction and services and not to manufacturing. Indeed, manufacturing has simply not been a part of the story. This explains why the pace of labour reallocation from agriculture to non-agriculture has been rather slow. Rising capital intensity of production, especially in labour intensive industries, is one of the challenges for raising the labour absorption in the manufacturing sector as we move towards formalization of jobs. The employment benefits of services-led growth are far too inadequate to translate growth into development. This is a serious cause of concern as it raises doubts about the capacity of the manufacturing sector to absorb labour, particularly in the post-pandemic scenario where most segments of industrial

manufacturing are running low capacities.

The demand for industrial labour has also taken a hit post-pandemic. If one looks at recent trends in global demand, one realizes a considerable shift towards capital intensive commodities. Within clothes and shoes, for instance, which comprise a very significant portion of India's exports to the rest of the world, after wage goods and food, that we mostly produce for sale in the domestic markets, one sees a rise in demand for synthetic garments and non-leather shoes, as opposed to cotton garments and leather shoes that have been our mainstay in global markets for decades (Union Budget, 2016-17). Both, clothes and shoes also happen to be segments exhibiting higher female workforce participation than the average and a relatively lower capital labour ratio. Looking at generation of farm incomes too, one realizes a marked shift away from farm to non-farm, with farm-incomes no longer the primary source of income for people in the rural economy, post 2011 (Sharma, A., 2015) (Acharya and Mehrorta, 2020). A number of workers from agriculture have been found to have changed employment to work as construction workers and/or take up professions like electricians, plumbers, and carpenters (Ramesh Chand and others, 2015). Consequently there has been a relative de-feminization of the rural workforce, pulling the overall female workforce participation rates further down. It would help if policy makers could recognize the degree and distribution of the same and identify segments like synthetic clothes and PU shoes within sectors that can be engaged with and pushed to attain higher female workforce participation along with higher levels of employment and lower capital intensity. This would not only help generate more employment and foster greater inclusion but would also go a long way in strengthening and expanding our manufacturing base, based on where comparative advantage lies.

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ECONOMIC HISTORY SANS ECONOMICS: ANEXAMINATION OF THE CRITICISMS OF THE DRAIN THEORY

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Abstract:
Mainstream economic history writing does not recognize the role of colonial transfers in Britain's industrialization and its subsequent rise to the position of the pre-war capitalist world's industrial and financial leader. They are therefore also dismissive of the validity of the Drain theory which identified the tax-financed nature of transfers from India to Britain. A closer examination of the mainstream economic historians' criticisms of the Drain theory reveals that they are based on obfuscation and questionable economics.

Keywords: colonialism, colonial transfers, Drain theory, tax-financed transfers

1.1 INTRODUCTION:

Mainstream economic history literature explains Britain's industrial revolution, its rise as the world's industrial and financial leader and the evolution of global capitalism as entirely endogenous self-driven processes with almost no reference to the role of colonialism and colonial transfers. In the limited acknowledgement where it exists, the role of colonies has been limited to serve as a source of raw material or as a market for British exports.

In the Indian context, the Drain theory put forward by Dadabhai Naoroji and R.C. Dutt identified and explained in detail the transfers out of India's budgetary revenue that took place annually and the debilitating effects it had upon the colonised economy. The drain theory which formed the cornerstone of the Indian nationalist movement identified the tax-financed nature of the transfers and was also the earliest attempt to estimate the size of the transfers. In

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LIBERALS AND LENIN: A CRITICAL REVIEW OF THE LIBERAL THEORIES OF IMPERIALISM

Author: **Vibha Iyer***

Abstract:

Lenin's theory of imperialism was in great measure influenced by the nineteenth century liberal thinker J.A Hobson's study of the subject. Although Hobson located imperialism within the ambit of capitalism, the twentieth century liberal writing on the subject mainly focused on critiquing Lenin's theory. While each of these liberal theories may apparently offer different explanations for imperialism they commonly argue for the dissociation of imperialism from capitalism, signalling a departure from their own antecedents. This article argues that since in their respective theories, there is no recognition of any link between imperialism and capitalism, a universal explanation for imperialism is impossible in the liberal school of thought.

Key Words: imperialism, Hobson, Lenin, liberals, capitalism, Schumpeter, social imperialism.

2.1: INTRODUCTION:

The word imperialism today broadly means a policy of territorial conquest and/or domination and exploitation either through state led aggression or through policies that may not necessarily involve the explicit use of force. Historically, the idea of imperialism and the theory surrounding it has undergone several interpretations and modifications by both Marxist and

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