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From The Chief Editor's Desk.......

It is a matter of great pride and privilege for me that our college journal has entered the sixth volume and has progresses satisfactorily. It is hoped that it meets tremendous expectations of our readers that they have from us after the fifth volume.

The purpose of our journal is to promote healthy, constructive and interpretive research on various topics in Humanities and Management. It involves research papers by scholars from home and abroad belonging to different fields of studies.

I am sincerely thankful to all the contributors for their quality research papers. These contributions are the milestones on the path of success which this journal is acquiring. I am extremely thankful to Dr. Swinder Singh Chhina, for his invaluable stewardship, guidance and motivation in making this journal successfully possible.

Last but not the least; I am very thankful to my editorial and advisory board which comprises eminent scholars from various regions for their time and devotion. We look forward to quality research papers from academicians and researchers in future. We also welcome critical comments that can help us to further improve the journal in the times to come.

Dr. Balbir Singh
Chief Editor

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ECONOMIC GROWTH AND STRUCTURAL CHANGE IN ETHIOPIA SINCE MID-1990s:AN EMPIRICAL STUDY

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Abstract

The main trust of this study is to describe the macroeconomic performance of Ethiopian economy using an empirical framework that incorporates the rate of real GDP growth and structural change indices. The study uses the National Bank of Ethiopia and the National Planning Commission macroeconomic data for the periods from 1992/92 to 2018/19. In addition, it uses the Ethiopian Economic Association annual report, ILO, WB's WDI and IMF databases. To account its macroeconomic performance, we have used tables, figures and deterministic index measures. The most important point noted from our discussion is that the real GDP growth is extraordinary, while the pace and magnitude of structural change is remained modest.

Keywords: Sectoral employment share, real GDP growth, structural change, and Value Added.

Introduction

From theoretical and empirical facts, economic growth and structural transformation are the most important longstanding twin concepts in the development debate (Agarwal and Gupta, 2016). On has always accompanied by the other. That is structural changes have been seen as mechanisms influencing the pace and extent of economic growth and vice versa (Zulkhibri, 2015; Rodrik and McMillan, 2011; Cortuk and Singh, 2011; Nirmal Rajkumar and Alamar, 2010; and Mazumdar, 2010). Zulkhibri (2015) and Cortuk and Singh (2011) have confirmed the co-integration of these two concepts in the development process, utmost in the long run; while Agarwal and Gupta (2016) have suggested the existence of these relationships with certain conditions of other control variables thereof.

Structural change is a key driver of sustained economic growth. It has played a vital role in alleviating poverty by reallocating resources to their most effective uses (Demary, Grömling, Kolev and Matthes, 2016 and Tadele, 2015). Better a country experiences rapid structural change, it is more likely to create more job opportunities in dynamic sectors and move forward. On the other hand, growth requires both new activities and ongoing structural change. These arguments point out that growth and structural change have a strong dialectical relationship to reinforce each other.

However, Ethiopia's economy is uniquely characterized by high economic growth without substantial structural change. According to Page (2018) and Rodrik (2014), Ethiopia is one of the world's fastest growing economies. For the last near three decades from now, the economy has performed quite well. It has experienced extraordinary real GDP growth rate of averaging 10.9 per cent per annum under Agricultural development-Led Industrialization macroeconomic policy framework. Extreme poverty has fallen from 55.3 per cent at the end of 1990s (one of the highest records) to 33 per cent in 2011, and in 2016 it reduced to 24 percent (WB, 2020). In this regard, Ethiopia has made far reaching efforts to eradicate poverty; and thus to envisioned to lift the country into the middle-income category in 2025 (Moller, 2015). Also it has seen a shift in the relative weight of GDP towards service sector from agriculture. However, on the other hand, the economy is characterized by low level of structural change (Tadele, 2015 and Dorosh, Schmidt & Admasu, 2012). Agriculture is still the main source of income and livelihood in rural Ethiopia (Teshome and Sidhu, 2020 and Deloitte, 2016). In addition, the economy is characterized by very low industrial development despite it has given significant policy focus since 2010.

In general, since 1992/93, the Ethiopian government has implemented various macroeconomic reforms involving a transition from a command to a market economy, devaluing exchange rate, favoring privatization, the right to ownership land reform, agricultural commercialization, commodity price deregulation and so on to boost economic growth (Tada, 2001 and Worku, 2010). In addition, in the last two and half decades from now, the country has implemented pro-poor fiscal policy reforms. Thus, since 1992/93, remarkable real GDP growth has been achieved. The government has also reported that the economy is undergoing structural change. Though there is a broad consensus that Ethiopia has registered a double-digit rate of growth of GDP, doubts are there about the pace and existence of structural change. So, the topic of debate today is on the sustainability of macroeconomic growth and on the existence of structural transformation. Because, the prominent economists, Geda (2018) and Degefe (2019), told that Ethiopia s economic growth is rather „structural retrogression due to its heavy reliance on public investment and agriculture. Public investment is large, which assumes 15.54 per cent of GDP in 2016 against its counter private investment that assume 19 per cent of GDP.

In this line, the objective of the study is to describe about the growth and structural change experiences of Ethiopia since mid-1990s. To this end, the conditions of real GDP growth rate, employment and real GDP shares of the major economic sectors have used.

Review of Literature

Since 1990s several African countries have achieved much progress in their GDP per capita growth, given that the sustainability questions are still running (Rodrik, 2014, and Berthélemy and Söderling, 2001). Specially, in the new Millennium, most of African countries have involved determining their fate of growth patterns by designing appropriate policies. However, there are doubts on sustainability of growth in the way to structural transformation. For instance, recently, in some oil and mineral exporting countries, growth gets slow down. But, still, some others are roaring for emerging Africa (Zamfir, 2016 and Radelet, 2010). Thus, Africa, in some parts, has gone up in the growth ladder. According to Zamfir (2016), over the past two decades, most African countries experienced fast and sustained economic growth, though from a low base, which needs more steps to go ahead to catch up with the other regions of the world. According to Zamfir (2016), favourable external conditions like high international commodity demand and availability of investment funds in search of new opportunities at global level; favourable domestic macroeconomic climate of reduction in external debt, and current account and fiscal deficits; and political stability were credited for the growth record in the region. Successful growth experiences have changed the previous pessimistic view of the continent's economic prospects with certain conditions (Rodrik, 2014). The phenomenon now looks like Africa falsifies the claim of „Hopeless continent in terms of growth. Right now, the questions are how Africa sustains it.

However, in some parts of Africa, growth has been manifesting itself in unemployment, inflation, hunger and malnutrition. Due to these reasons, some scholars such as Rodrik (2014) have still pessimistic view about the sustainability issues in Africa. They believe that due to poor structural change and industrial sector, Africa's growth miracle may not do good jobs on economic fundamentals.

Studies conducted by Berthélemy and Söderling (2001) suggested that sustainable growth needs to be based on a balanced mix of capital accumulation and structural change. The standard neoclassical and endogenous growth theories have also identified these two (i.e. capital accumulation and technical progress) as key factors of growth and development. However, some peculiarities have occurred in developing countries. For instance, a study made in Africa (including Ethiopia) by McMillan and Rodrik (2011) found out that Africa has experienced growth reducing structural change since 1990 due to the shift of labour from high productive to low productive sectors. On the other hand, a study made by Rodrik in 2014 suggested that Ethiopia has some growth-enhancing structural change while Kenya has little contribution to growth. However, in these economies, the manufacturing sector is doing very poor.

Ethiopia has been mentioned as one of the fastest-growing economies in the world for the last fifteen years with annual „double-digit‟ economic growth that has made Ethiopia the symbol of Africa s economic turnaround. Its GDP is growing by slightly more than 10 per cent annually on average for the last 15 years and so (Shiferaw, 2017, Kabeta and Sidhu, 2016, and Zamfir, 2016). According to Zamfir (2016), Ethiopia is one of Africa s fastest- growing economies. Especially, its economic growth is greatly intensified after 2005 (Shiferaw, 2017). Thus, we can argue that Ethiopia s economic regularity has been showing a consistent upward trend of GDP growth. Shiferaw has noted that higher public investment

was the main driver of rapid economic growth in the country. It increased to 16 per cent in 2014 from 6 per cent of GDP in 1992/93.

According to (Martins, 2014), total Gross Value Added (GVA) increased four-fold in merely two decades, from 128 billion birrs in 1991 to 510 billion birrs in 2011 (in constant prices). Economic growth has been accelerating steadily over the past twenty years. In the early 1990s, real GVA grew at an average of about 4.8 per cent, compared with 5.2 per cent in the late 1990s. In the second half of the 2000s, economic growth accelerated substantially to over 10 per cent per year. However, agriculture has maintained its importance as a source of income and livelihood (Martins, 2014). In the meantime, it accounted about 45 per cent of GVA through the steady and significant decline of its share. Currently, the GVA share of it is declined to 34.9 per cent (NPC, 2019). However, in the comparison of other countries of the region, Ethiopia has the lowest share of industrial sector (UNIDO, 2009). Undeniably, the service sector has risen rapidly to assume the highest share, and consecutively people have been migrating to the urban scene where in the living conditions have deteriorated over time.

Data and Method of Analysis

To conduct this research, variables like real GDP growth rate, absolute real GDP, sectoral GDP and employment shares have used. They have collected from various sources including the national accounts of National Bank of Ethiopia and Planning Commission, IMF, ILO and the World Bank s WDI dataset, and annual report of Ethiopian Economic Association. All data have valued at 2010 constant price.

Growth and structural change are multifaceted concepts. They involve varieties of methods to describe and analyze them. More often, they have been described by the changes in the compositions of macroeconomic aggregates. Tables, figures and some measures of indices are used to discuss the empirics on certain macroeconomic indicators. The percentage change in real GDP growth at sectoral and aggregate levels has used to describe the growth experience of the country. Regarding the structural change component, we have used the sectoral shares of GDP/GVA and employment, and the Norm of Absolute Value (NAV) and Modified Lilien (ML) index measures.

A. Norm of Absolute Value (NAV) Index

It is the simplest and convenient measure of structural change in the economy (Dietrich, 2012 and 2009 and Nishi, 2018). It uses aggregate and sectoral value-added and employment data are required. The estimation is as simple as using the sum of the absolute amounts of the differences of the sector shares of value-added or employment between two points in time t and s. It calculates the value by summing the absolute differences of the shares of each sector on the time interval specified and finally, divided by two (2).

Let Yi,t be the share of sector i at time t = 2, 3, ……, T and s=1, 2, 3, ……., T-1 respectively. The period is in a year. Thus, based on Dietrich (2009 and 2012) the NAV index is calculated as:

$$\mathrm{NAVs,t} = 0.5\sum_{i=1}^{n}|Y_{it} - Y_{is}|; i = 1,2,3. \qquad \text{(i)}$$

Where, i(= 1, 2 and 3) major economic sectors namely agriculture, industry and services; Y is a sectoral variable (it can be sectoral value-added or employment), and Yi,t and Yi,s are share of sector i at time t and s.

The difference of the sector shares Y_i between the time intervals (yearly) gives the NAV index. It takes the value between zero and one, inclusive. The value near or equal to unity implies the whole economy undergoes a total change (the greatest change); and zero entails all sectors are content with the status quo in their share (share remains constant).

A. Modified Lilien Index (MLI)

According to Mishra, Arunachalam and Patnaik, 2018; Ansari, Mussida, and Pastore, 2014; and Dietrich, 2009 and 2012, first, Lilien (1982) has developed the Lilien Index for the analysis of the sectoral growth of demand for labour. Since that time, it has been used as a convenient measure of dispersion. It has also considered as a useful measure of the speed and size of structural change. It computation requires sectoral value-added and employment data.

Following Dietrich (2012) and Stamer (1999) cited in Gnangnon (2020) the MLI is defined as follows:

$$\mathrm{MLI} = \sqrt{\sum_{i=1}^{n} Y_{i,s} * Y\left(\frac{\ln Y_{i,t}}{Y_{i,s}}\right)^2}, \; Y_{1,s}, Y_{1,t} > 0 \qquad \text{(ii)}$$

Where, Yi,t and Yi,s are the sector i"s share in a variable of interest (in this case value-added or employment) at time t and s, respectively, ln(Yi,t / Yi,s) is value-added or employment growth in sector i between period t and s.

The MLI is bounded in between zero and one, inclusive. Zero implies the structural change process is very slow or stagnant; while, if the indicator measures to unity, the speed of structural change of the economy is at its highest level.

Empirical Findings

Preliminary Analysis

Ethiopian economy is characterized by a large traditional rural sector and a small modern urban sector. Many of the economic activities are concentrating on the primary sector. More than 80 per cent of the population found its means from agriculture. That is why it has remained as the mainstay of the majority of the community. Currently, it accounts for about 35 per cent of GDP and about 65.4 per cent of employment and more than 80 per cent export earnings. These figures were 55.3, 80.2 and 85 per cent respectively in 2000. This figure is still apparent. According to UNDP Ethiopia (2018), over 70 per cent of Ethiopia‟s exports are primary agricultural products such as coffee, oil seeds, chat, pulses and cut flowers. The industrial sector is still small and did not show a significant change for long periods; if any, the construction sector takes the lion share of it. Currently, the service sector assumed the largest share in GDP to account about for 39.2 per cent of it. Of course, its share has shown some decline from its previous years‟ figures when it assumed near about half of the country‟s GDP. Retail and distributive trade, hotels and restaurants and some financial businesses, which are less productive by definition, dominate the service sector.

According to Teshome and Sidhu (2020), total employment has increased from 28.7 million people in 2000 to 51.9 million people in 2018. Of which, agriculture accounts for 33 million peoples, this is about 63.6 per cent. The service sector provides employment opportunities for 11.5 million people or 22 per cent of the total employed people. Besides, the balance for the same year is covered by the industrial sector. The shares of the working-age population and employment participation rate have been increasing in the periods 2000-2018, while the total factor productivity gains declined.

Ethiopia‟s growth experience for the last two decades and so has been marked by four successive five-year national plans under the lead of, “democratic developmental state”, ideology. During these times, the Ethiopian government has been pursuing far-reaching macroeconomic reforms and investment decisions. It has made broad investment in agriculture, road and telecom infrastructure and social services like health and education sectors. It has also made a huge investment in other mega projects like in the construction of condominium houses, hydropower dams including Great Renaissance Dam on Nile River, in railways, in the industrial hubs and irrigation schemes.

The growth distribution across the plan periods have given in table 1 below.

Table 1: Real GDP growth Rate across the Plan Periods

Year	2000/01-2004/05	2005/06-2009/10	2010/11- 2014/15		2014/15	2015/16	2016/17		2017/18
			Actual	Target			Actual	Target	
lnGDP (in %)	5.87	10.86	10	11.2	10.5	8	10.246	11.1	7.7
LnGDP_PC (in %)	2.47	7.79	7.78	-	7.62	4.90	7.56	-	-

Note: lnGDP and lnGDP_PC indicate average growth rates of GDP and GDP per capita, respectively.

Source: EEA (2017/18) and NBE (2018)

The table shows the average growth rates of real GDP and GDP per capita for the periods 2000/01to 2016/17. The average growth rates for these indicators are doing well during the entire period. As it has been indicated from the table, the real GDP growth rate has shown a dramatic increase during the PASDEP period. During the GTP-I it grew at a rate of 10 per cent on average, which shows an 8.6 per cent reduction from its preceding period average growth rate. This rate of average growth in GDP was also less than by about 1.2 percentages from its targeted growth rate of 11.2 per cent. From the table, it has shown that during GTP II, the year-to-year growth rate is fluctuating. It switches from one year to the other due to various reasons: weather, socio-economic and political. For instance, in 2017/18, the GDP growth rate had declined to 7.7 per cent. This was because of the cumulative effects of political disruptions, ethnic conflict and macroeconomic imbalances.

In short, over the past 18 years, Ethiopia has witnessed a very significant macroeconomic progress: from a nation known for hunger and poverty to one of the world‟s fastest-growing

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economies.

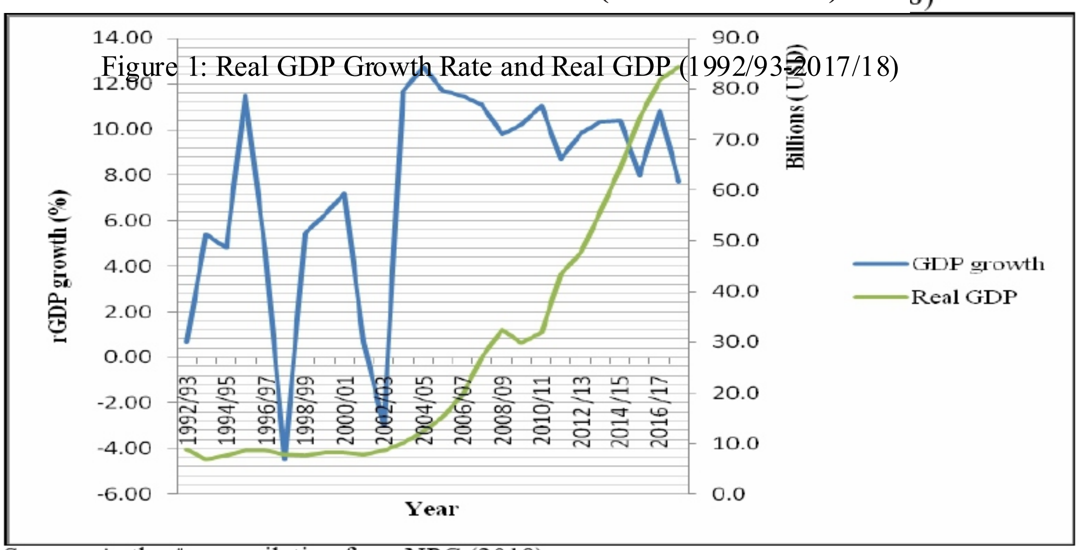
Macroeconomic Performance

Real GDP Growth

As it has indicated in figure 1 below, the economy has shown upward trending GDP growth rates all over the periods except for those war and drought-prone years since mid-1990s. Real GDP has grown from 5.87 per cent to 10 per cent on average during 2000/01-2004/5 to 2010/11-2014/15, respectively. Absolute real GDP has shown to a sharp increase from 8.24 billion USD to 83.8 billion USD over the sample period, which looks unlikely to imagine for the late developer state, Ethiopia. It has increased from 29.9 billion USD in the year 2010 to 83.8 billion USD in 2018, almost tripled. The real GDP growth rate has, of course, tied to public investment and increased domestic consumption demand. As per MoFED (2014), FAO (2017) and UNDP (2018) official reports and publications, the government‟s strong commitment in public investment was the primary driving force of such remarkable growth in the country. From the IMF (2019) dataset, public investment has increased from 4.28 per cent of GDP in 2000 to 11.01 per cent in 2010 against private investment increase from 5.59 per cent to 5.97 percent. Public investment has further increased to 15.54 percent in 2016 while; private investment has increased to 19.01 percent.

The figure represents the average annual growth rate of real GDP in the left axis and GDP in real terms in the right for the specified years.

Figure 1: Real GDP Growth Rate and Real GDP (1992/93-2017/18) 8)



Source: Author"s compilation from NPC (2019)

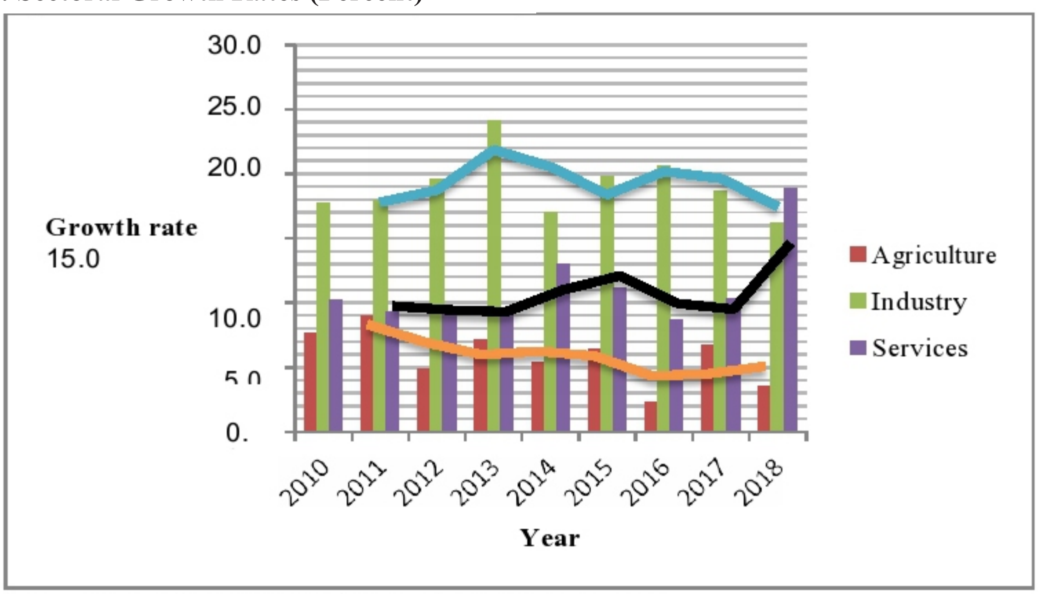
As we can have a closer look to the figure, the growth process was not smooth; instead, it has characterized by unpredictable trends. The Ethio-Eritrea war and the aftermath party crisis, the recurrent national droughts, inflation and lately learned ethnic and political instabilities can be mentioned as the main driving forces of such vicissitudes. As a result, from the figure, we can observe that the economy has registered a negative real GDP growth rate (i.e. about -4.45 per cent) during Ethio-Eritrea war (1998); and in 2002/03, the national drought severely influenced the economy. According to the FAO (2003) report, about 11.41 million people (i.e., 16.5 per cent of the total population) were suffered. Farmers were lost their cattle; crops had withered two or three times with lack of rain for an extended period.

Another major national drought- called “El Nino” which was occurred in 2015/16 had greatly affected the country‟s GDP growth rate. This had special impact on the agricultural sector because of its rain-fed characteristics (EEA, 2017). For that matter, as much as 75 per cent of harvests had been lost and near to 1 million livestock were threatened because of water shortage. It is evident from the above figure that the growth rate of the economy had declined to 8 per cent in the same year, which is less by 2.4 percentage point than the previous year real GDP growth rate. In 2017, the economy had recovered, and it grew at the rate of around 10.9 per cent, 2.9 percentage points more than its previous year growth rate. However, in the 2018 fiscal year, the real GDP growth rate had come down again due to the surge of political and ethnic tension and ever-swelling popular anger on the government, and it was only growing at the rate of 7.7 per cent, according to NPC (2019) data. Perhaps, this is the lowest growth rate since 2004. Otherwise, the growth rate varied between 8 and 12.6 percentages since 2003/2004.

Sectoral Growth Rate and Contribution to GDP Growth

Figure 2 below, presents the distribution of growth rates across the three major industries of the economy from 2010-2018. During this period, the average growth rates of agriculture, industry and services were 5.9, 18.6 and 10.2 per cent, respectively. In the period, it seems that service sector growth has gone to counterbalance the growth trends of the industry. The two periods moving average trend line, which is indicated in figure, has indicated the counter-cyclical growth patterns between the industrial and service sectors. However, agriculture steadily loses its sectoral growth rates over time.

Figure 2: Sectoral Growth Rates (Percent)



Source: Author‟s calculation from the NPC database, 2019

Although it does not commensurate with the increase in employment, GDP and foreign exchange shares, the industrial sector is performing quite well in terms of sectoral growth. According to EEA (2017) report, the phenomenon is associated with the high growth episodes of the construction sub-sector, and the relative slowdown of other major sectors. The three major sectors have contributed positively to GDP growth. However, on average, the service sector has contributed the largest share followed by industry. The sectoral contribution to the GDP growth is positively associated with absolute sectoral growth.

Table 2: Sectoral Contribution to GDP and GDP Growth

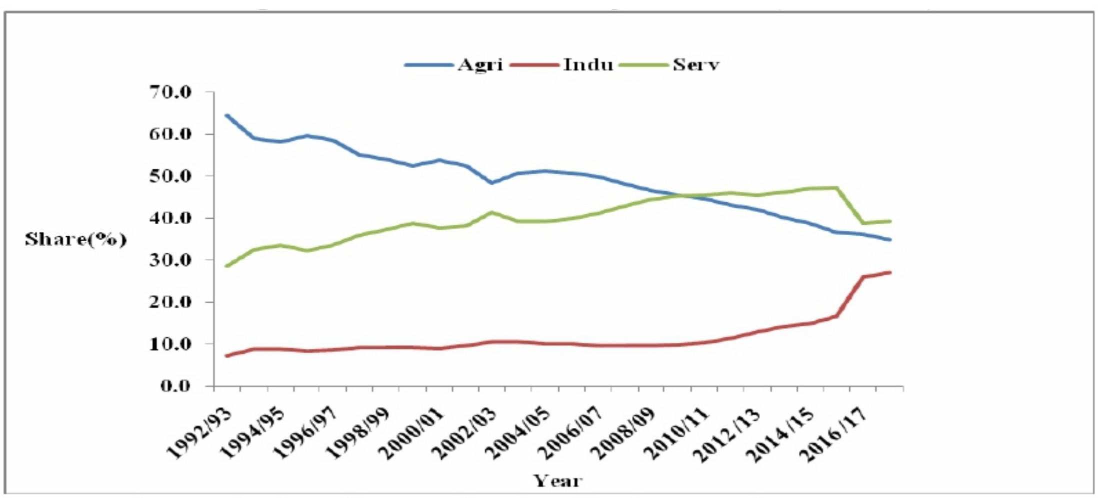
Year		2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Agriculture	Absolute Growth	4.9	7.1	5.4	6.4	2.3	6.7	3.5
	Contribution to GDP growth	2.3	3.1	2.2	2.6	0.7	2.4	1.3
	Contribution in %	25.3	29.2	21.2	23.2	8	24	16.7
Industry	Absolute Growth	19.6	24.1	17	19.8	20.6	18.7	16.2
	Contribution to GDP growth	2.9	4.2	3.4	4.5	4.6	4.7	3.1
	Contribution in %	31.9	39.6	32.7	40.2	52.9	47	39.7
Services	Absolute Growth	9.6	9	13	11.2	8.7	10.3	18.9
	Contribution to GDP growth	3.9	3.3	4.8	4.1	3.4	2.9	3.4
	Contribution in %	42.9	31.1	46.2	36.6	39.1	29	43.6

Source: NPC data series (2018) and National Bank of Ethiopia (2017)

GDP and Employment Composition of Major Sectors

In the following figure, it is clearly indicated that agriculture has assumed the largest share of GDP for most of the years considered. However, its share has smoothly fallen from 55.3 per cent in 1999/00 to 34.9 per cent in 2017/18.

Figure 3: GVA Share of Major Sectors (% of GDP)

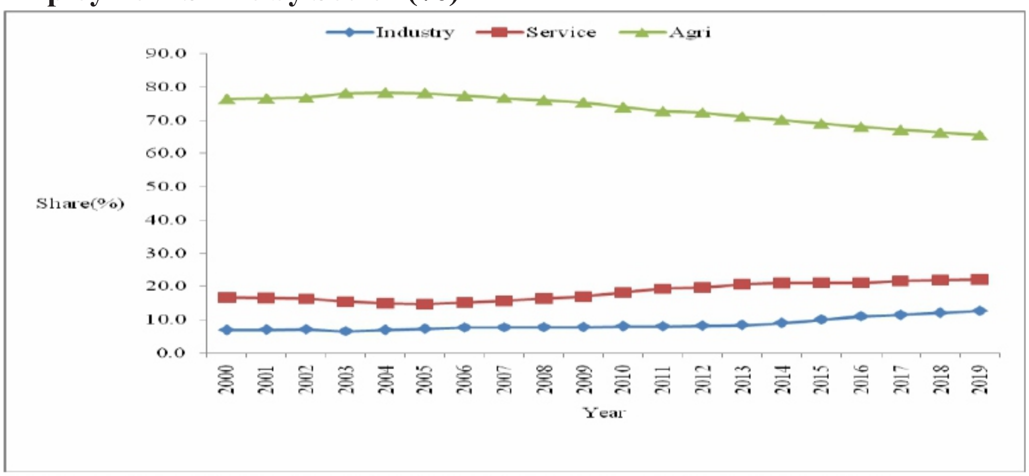


Source: Author's Estimation using NPC (2019) National Account data, 2019

On the other hand, the shares of the service and industry sectors have been increasing. Nowadays, there is a broad consensus that the services sector is driving Ethiopia‟s macroeconomic performance in terms of GDP. Even though it has shown some declining trends in recent years, it has assumed the largest GDP share of the economy, yet. Due to the internal political instabilities and social tensions in the years 2016/17-2017/18, it could not maintain the momentum which has come so far. Otherwise, our conclusion in terms of service sector performance and structural shift towards the service sector is consistent with that of other findings such as Tesfaye (2017) and Kabeta and Sidhu (2016).

Another most important aspect of macroeconomic performance is the shift of the labour force across the broad sectors of an economy. It corroborates the process of economic transformation over time. Therefore, the change in employment share is always taken as the most important parameter of discussion in macroeconomic performance and structural transformation. In this regard, agriculture is still making up a significant share of the total employment in Ethiopia. Its share has declined only by about 16.6 percentage point between the period 1999/00 – 2018/19. That is, as it has shown in figure 4 below, it has declined from 76.3 per cent to 65.4 per cent between these two periods.

Figure 4: Employment Share by Sector (%)



Source: Author"s Calculation from ILO (2018) and Africa Sector Database (2019)

From the figure, it is clear that the employment shares of service and industry sectors are lying at the bottom by far from agriculture‟s share. As well the trend lines are remained flat. Based on ILO and Africa Sector database, in 2019, service sector contributes 22.1 per cent employment share. The balance is contributed by the industrial sector. The largest contributor to the country‟s GDP (the service sector) only employed 22.1 per cent of the total labour force. That is, the GDP share growth in the service sector could not translate itself to job generation in the sector to sustain the structural transformation process.

Thus, we can conclude that the economy has not gone significant structural change in sectoral employment composition.

Norm of Absolute Value (NAV) Index and Structural change

The following table (table 3) shows the percentage change in the sectors‟ total value-added (panel-a) and employment (panel-b) shares. To start with the value-added, the share of agriculture has declined in all of the sub-periods specified. Especially, during the first sub-period agriculture is experienced by the highest decline (i.e. -10.27).

Table 3: Norm of Absolute Value Index

Panel (a): Percentage change of VA over time across major sectors

Sector	Period 1 1992-1998	Period 2 1999-2004	Period 3 2005-2009	Period 4 2010-2014	Period 5 2015-208	Total change 1992-2018
Agriculture	-10.27	-1.39	-5.23	-5.98	-1.77	-29.41
Industry	1.96	0.98	-0.16	4.51	10.27	19.66
Service	8.66	0.30	5.50	1.41	-8.08	10.70
NAV	**0.104**	**0.01**	**0.054**	**0.06**	**0.101**	**0.30**

Panel (b): Percentage change of employment over time across major sectors

Agriculture	-2.03	1.85	-2.78	-3.86	-2.70	-12.13
Industry	0.40	0.03	0.48	1.00	1.98	5.99
Service	1.63	-1.89	2.30	2.86	0.72	6.14
NAV	**0.02**	**0.019**	**0.028**	**0.039**	**0.027**	**0.121**

Source: Author"s Computation from the National account of NBE (2018/19)

The NAV index has indicated the stability of the economic structure for the last near twenty-five years. As it has been indicated in the table, the economic structure has undergone 30 and 12.1 per cent average changes in terms of value-added and employment sectoral share, respectively, for the last twenty-five years. That is, near about one-fourth and one-tenth of the production activities and employment shares, respectively, have shifted across the economic sectors, mainly from agriculture to service and industry sectors.

Regarding period-wise shifts, the first period shows a relatively high NAV value (10.4 per cent) in value-added share; suggests that about 10.4 per cent of the production activities have relocated among sectors over that specified period. It is followed by the fifth and fourth periods, respectively. Thus, shifts have occurred from agriculture to services in earlier periods while in the latter periods it has done towards the industry.

Modified Lilien Index and Structural Change

As indicated in table 4 below, the MLI values are very small. The overall change in the distribution of the labour force across the productive sectors is about 0.1576 for the whole period. That is, the rate of change in the sectoral employment share is only 15.8 per cent. This implies that structural change has been very slow in the country for the last twenty-seven years. This slow inter-sectoral shift of the labour force (employment) is determining the sectoral composition of total output to be slow as well (see also Boyer, Boyer and Hirachi, 2018).

Table 4: Modified Lilien Index (Employment)

Period		Agriculture	Industry	Service	MLI
1	1993-1999	0.00041	0.00002	0.00026	**0.0263**
2	2000-2004	0.00034	0.00000	0.00036	**0.0264**
3	2005-2010	0.00183	0.00005	0.00125	**0.0560**
4	2011-2015	0.00147	0.00040	0.00034	**0.0470**
5	2016-2019	0.00068	0.00026	0.00010	**0.0321**
Total	1993-2019	0.01670	0.00411	0.00404	**0.1576**

Note: MLI-modified Lilien Index
Source: Author‟s Estimation using ILO Employment database

When we see the size and extent of overall changes of the MLI across the sectors, it is higher in agriculture. That is the rate of change in employment composition is higher in agriculture. In case of industry and service sectors, the value of MLI switches across periods in the sense that for the first three periods the service follows agriculture, while for the last two periods industry precedes service sector.

Conclusion

From the above discussion, we found out that the priority of the economy has been shifting from agriculture to the service sector in terms of GDP. Agriculture has steadily lost its GDP and employment share to other sectors, mainly to the service sector. However, the decline in employment share has not commensurate the decrease in GDP. Agriculture has assumed two- third of the employment share. We have also found that the magnitudes of structural change indices (the NAV and MLI) are much lower than the threshold value (that is unity that represents the economy to go for a total change).

Therefore, we can conclude that Ethiopia has experienced higher economic growth without significant structural change. That is, Ethiopia s growth experience has not turnaround to structural change as of the kind that McMillan and Rodrik (2011) suggested in Asian Miracles. Agriculture is still the predominant sector. Referring to this, we should devise farm-inclusive development strategies to increase rural productivity. It is also recommended for the reorientation of policies towards more productive and labor-intensive sectors like Information Technology, railways and aviation services, banking and insurance, transport and communication, manufacturing and pharmaceutical industries.

References

- Ansari, M. R., Mussida, C., & Pastore, F. (2014), "Note on Lilien and Modified Lilien Index", *The Stata Journal*, 14(2), 398-406.
- Aggarwal, A., & Kumar, N. (2015), "Structural Change, Industrialization, and Poverty Reduction", *Structural Change and Industrial Development in the BRICS*, 199.
- Boyer, R., Boyer, R., & Hirachi. (2018), *Evolving Diversity and Interdependence of Capitalism,* Springer.
- Berthélemy, J. C., & Söderling, L. (2001), "The Role of Capital Accumulation, Adjustment and Structural Change for Economic Take-off: Empirical Evidence from African Growth Episodes", *World Development*, 29(2), 323-343.
- Cortuk, O., & Singh, N. (2011), "Structural Change and Growth in India", *Economics Letters*, 110(3), 178-181.

- Dietrich, A. (2012), "Does Growth Cause Structural Change, or is it the Other Way Around? A Dynamic Panel Data Analysis for Seven OECD Countries, *Empirical Economics*, 43(3), 915-944.
- Dietrich, A. (2009), Does Growth Cause Structural Change, or is it the Other Way Round?: A Dynamic Panel Data Analyses for Seven OECD Countries (No. 2009, 034), *Jena Economic Research Papers*.
- Dorosh, P., Schimdt, E., & Shiferaw, A. (2012), "Economic Growth without Structural Transformation: The Case of Ethiopia", *Journal of African Development*, 14(2), 7-40.
- Ethiopian Economic Association (2017). Report on the Ethiopian Economy:Challenges of Sustaining Ethiopia s Foreign Exchange Earnings from Exports and Remittances. Addis Ababa, Ethiopia.
- Demary, V., Grömling, M., Kolev, G., & Matthes, J. (2016). *Prosperity in a changing world: Structural change and economic growth (No. 6/2016). IW Policy Paper.*
- FAO(2017), "FAO Ethiopia Newsletter", Volume 2 - Issue 1, July – December.
- FAO(2003). FAO Newsroom; Drought-stricken Ethiopia: FAO launches $3.2 million appeal.
- Geda, A. (2018), The Emerging Pattern of African Economic Engagement with China and the Rising South: Implications for Africa s Structural Transformation, *Journal of African Economies*, 27(suppl_1), i52-i90.
- Gnangnon, S. K. (2020), "Comparative Advantage Following (CAF) Development Strategy, Aid for Trade Flows and Structural Change in Production, *Journal of Economic Structures*, 9(1), 1.
- ILO(2018), "International Labour Organization, National Accounts Statistics, Sectoral Employment", ILO
- IMF(2019). Investment and Capital Stock Dataset, 1960-2017; *Version: August 2019, Fiscal Affairs Department.*
- Kabeta, Z. E., & Sidhu, I. S. (2016), "Service Sector: The Source of Output and Employment Growth in Ethiopia", *Academic Journal of Economic Studies*, 2(4), 139-156.
- Lilien, D. M. (1982), "Sectoral Shifts and Cyclical Unemployment", *Journal of Political Economy*, 90(4), 777-793.
- Mazumdar, S. (2010). Industry and services in growth and structural change in India: some unexplored features.
- McMillan, M. S., & Rodrik, D. (2011), *Globalization, Structural Change and Productivity Growth*, No. w17143, National Bureau of Economic Research.
- Moller, L. C. (2015), "Ethiopia s Great Run: The Growth Acceleration and How to Pace it", Washington, DC: World Bank Group.
- MoFED (2014), "Federal Democratic Republic of Ethiopia: Growth and Transformation Plan I Annual Progress Report", Addis Ababa, Ethiopia.
- Martins, P. (2014), "Structural Change in Ethiopia: An employment Perspective", Browser download paper.
- Mishra, A. K., Arunachalam, V., & Patnaik, D. (2018), *Current Issues in the Economy and*

Finance of India. Springer.

- National Bank of Ethiopia (2019), "National Economic Accounts Statistics of Ethiopia: Estimates of the 2010 Base Year series", Federal Democratic Republic of Ethiopia, Addis Ababa, Ethiopia.
- National Bank of Ethiopia (2018), "National Economic Accounts Statistics of Ethiopia: Estimates of the 2010 Base Year series", Federal Democratic Republic of Ethiopia, Addis Ababa, Ethiopia.
- National Bank of Ethiopia (2019), "Annual Report: Ethiopian Fiscal Year 2018-19 Macroeconomic Performance", Addis Ababa, Ethiopia.
- National Bank of Ethiopia (2018), "Annual Report: Ethiopian Fiscal Year 2017-18 Macroeconomic Performance", Addis Ababa, Ethiopia.
- National Planning Commission. (2019), "National Economic Accounts Statistics of Ethiopia: Estimates of the 2010 Base Year series", Federal Democratic Republic of Ethiopia. Addis Ababa, Ethiopia.
- National Planning Commission. (2018), "National Economic Accounts Statistics of Ethiopia: Estimates of the 2010 Base Year series", Federal Democratic Republic of Ethiopia. Addis Ababa, Ethiopia.
- Nirmal Rajkumar, V. (2010), "An Analysis of Sectoral Performance of Indian Economy", Website: http://hdl.handle.net/10603/125097
- Nishi, H. (2018), "Structural Change, Sectoral Disparity, and the Economic Growth Process in Japan", in *Evolving Diversity and Interdependence of Capitalisms*, pp. 397-429, Springer, Tokyo.
- Page, J. (2018), "Rethinking Africa's Structural Transformation", *The Rise of New Industries,* Brookings Institute, Brookings, Washington DC.
- Radelet, S. (2010). Emerging Africa: How 17 countries are leading the way. *Brookings Institution Press.*
- Rodrik, D. (2014), "Why an African Growth Miracle is Unlikely", *Milken Institute Review*, 43- 54.
- Rodrik, D., & McMillan, M. (2011), "Globalization, Structural Change, and Economic Growth", *Making Globalization Socially Sustainable*, 49-80.
- Shiferaw, A. (2017), "Productive Capacity and Economic Growth in Ethiopia", United Nations, Department of Economics and Social Affairs.
- Tada, P. R. (2001). Economic Reforms and Structural Changes in Ethiopia since 1992; An Inquiry. *Scholar Works at Western Michigan University; International Conference on African Development Archives.*
- Tadele, F. (2015), "Sectoral Economic Growth and Structural Transformation in Ethiopia", *Addis Ababa University, Ethiopia; unpublished.*
- Tesfaye, A. (2017), State and Economic Development in Africa: The Case of Ethiopia*, Springer.*
- UNDP (2018), "National Human Development Report 2018, Ethiopia: Industrialization with a Human Face", UNDP Ethiopia, Menelik II Avenue, Addis Ababa.
- UNIDO (2009), "Industrial Development Report", *Africa.*

➢ Worku, I. (2010). Road sector development and economic growth in Ethiopia. *Ethiopian Journal of Economics, 19(2), 101-146.*

➢ World Bank (2020). Ethiopia Poverty Assessment: Harnessing Continued Growth for Accelerated Poverty Reduction. *Washington DC. © World Bank.*

➢ Zamfir, I. (2016), "Africa's Economic Growth: Taking Off or Slowing Down?", Members' Research Service, Directorate-General for Parliamentary Research Services, European Parliament.

➢ Zulkhibri, M., Naiya, I., & Ghazal, R. (2015), "Structural Change and Economic Growth in Selected Emerging Economies", *International Journal of Development Issues*, 14(2), 98-116.

DEVELOPMENT EXPERIENCE IN INDIA SINCE 1991 WITH THE INCEPTION OF NEW ECONOMIC POLICY (NEP)

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Abstract

The key feature of the changed world economy as well as of India is the element of the heightened economic globalization which provides new external challenges as well as opportunities for development. Economic globalization here refers to the integration of economic processes across political borders so that the behaviour of the economic agents is oriented to the global market rather than particular national markets.

In the context of the above problematique, the research work intends to understand the broad framework of capitalist development, examining different dimensions of the reform process. In the work both the theoretical and empirical literatures have been tried to explore. The time series analysis has been attempted to study the impact of the economic process. The study intends to explore both primary and secondary sources, analyzing them in the context of macro-economic and micro-economic indicators. An effort has been made to examine the impact of the reform on the role of the expanded market and the nature of competitiveness faced by the economy, in the context of global access to opportunities. The work proposes to be historical, descriptive and empirical; it would attempt to understand the changing role of the market as well as the role of the India's capitalist state.

The suggested study seeks to make a comprehensive analysis of the question of reforms in the context of Structural Adjustment Programme (SAP) in India since 1991 with the inception of New Economic Policy. The study shows the degree and the nature of the interaction between the state and the market in the context of globalization wave and also tries to give opinion upon the possible victorious to be found out of the interaction between the two important institutions i.e. state and market in Indi in realizing the ultimate goals of development for the state of India & that happens to be the major finding of the proposed research work.

Keywords: Development, Planning, State Intervention, Market Economy, Economic Reforms, Delicensing, Debureaucratization, Liberalization, Privatization, Globalization etc.

Introduction

The problem of bureaucratic non-performance has acquired a unique dimension of far-reaching implications in the planning and implementation of the socio-economic goals of the society. In many emerging and developing states, the existence of suitable governmental machinery to carry out continuing public functions with minimal efficiency is a basic requirement of progress and political survival. The prompt achievement of planned goals and resolution of basic problems is dependent on the presence of reservoir of competent and resourceful officials and their ability to perform essential tasks of government. In this chapter, an attempt has been made to describe the role and performance of governmental mechanism in India in the context of the administrative state, the emerging socio-economic milieu and the national political ethos has been analyzed. Such an exercise requires an examination of (first) its historical legacy, its profile in general, and the political context in which it works, and secondly, its characteristics and behaviour in the light of the maladies from which it suffers. Finally, a very modest attempt has been made to suggest measures aimed at rejuvenating governmental machineries so as to inspire confidence in the public about its ability to work for the fulfillment of the socio economic needs and aspiration of the people.

In this context it was to be admitted that the changing role of the state in the 20th century was characterized by the expansion of state activities both in the North and in the South. In the present understanding a modern state is supposed not only to protect the freedom of individuals but also to guarantee social security, increase its affluence and social progress. The role and performance of Indian State has to be understood in its initiative of deploying administrative mechanism (bureaucracy) in realizing the desired development for the country. In this context it is necessary to put some highlights on the concept of 'development'.

It is argued generally that economic liberalization covers many aspects of policy but the central issue at stake is the relative role of state and market in the operation and management of the national economy. It has been found that keeping tune with the assumption mentioned above the contemporary movement in economic policy reform has involved the retreat of the state of India and the shedding of many of its economic functions in favour of the market.

The key feature of the changed world economy as well as of India is the element of the heightened economic globalization which provides new external challenges as well as opportunities for development. Economic globalization here refers to the integration of economic processes across political borders so that the behaviour of the economic agents is oriented to the global market rather than particular national markets.

The changed environment in the context of liberal economy has put much emphasis upon economic globalization. The scholars are of the conviction that economic globalization and economic nationalism are the two fundamental forces that have been shaping the world's economic terrain over the last few centuries. The two forces are obviously related to each other, with globalization opposing and provoking economic nationalism as well as transforming and transcending it, even as its apparently inexorable path of expansion and possible eventual triumph has been continuously interrupted and redirected by nationalism. Both contending forces are integrally linked with markets and states for both have been fundamentally rooted in the rise of markets and states in the modern era. As a result of this fundamental questions remain, for the developing world including India near the end and the beginning of the twenty first century precisely the relationship of globalization and nationalism to economic policy reforms.

An overview of the literature bearing upon the present study can best be presented in the following manners:

(a) Literature (to some extent) relating to the question of state intervention in terms of regulated economy (Planned Economy) in India before the inception of New Economy Policy (NEP) since 1991.
(b) Literature relating to the role and performance of structural reforms in the context of the changed role of the state and the market in India since the inception of New Economic Policy (NEP) since 1991.

With reference to <u>first category</u> following among many available are gone through

1 .C. D. Desmukh: *Economic Developments in India: 1946-1950,* (Asia Publishing House, New York, 1957)

2. Prof. Dhiresh Bhattacharya: *India's Five Year Plans: Ninth Edn.,* (Calcutta, Joydurga Library 1986)

3. Sukhamay Chakraborty:*Development planning: The Indian Experience*, (Oxford University Press, 1987)

With reference <u>second category</u> following books among many others are given priority

1. Ruddar Datt and K. P. M Sundaram: *Indian Economy,* (S. Chand and Company Limited, New Delhi, 2000),
2. Amit Bhaduri and Deepak Nayyar: *The Intelligent Person's Guide to Liberalization,* (Penguin Books India Private Ltd, 1996),
3. Jean Dreze and Amartya Sen: *India: Economic Development and Social Opportunity,* (Oxford University Press, 1995)
4. Baldev Raj Nayar: *Globalization and Nationalism* (Sage, 2001),
5. Terrance J. Byers:*The State, Development Planning and Liberalization in India*, (Oxford University Press, 1998),

Concept of Development

'Development' is a continuously changing and dynamic concept. Since the beginning of civilization it has been taking different shapes and dimensions. The nature of development as seen in the early 1990s differs considerably from that was seen in the early 1950s or from that was in the 19th century. "Development never will be and never can be defined to universal satisfaction", states the Brandt Commission Report. Similarly Uphoff and Ilchmen point out that development is probably one of the most depreciated terms in social science literature, having been used more than it has been understood. [1]

Many have defined 'development' in terms of increase in national economy, some others include social improvement and still others think of it in terms of increase in the capacity of political system. There are others also who make no distinction between development and modernization. Thus, development is a complex phenomenon comprising many dimensions -social, political, economic, and administrative and so on. Scholars now speak of "economic development", "political development, "social development" and so on. In the context of public administration, scholars read, talked about 'development administration' and 'administrative development'. Thus, economic, political, social and administrative development may be viewed as emerging from development without being development. So, while defining the concept of development, it is necessary to take an integrated approach. [2]

According to Colm and Geiger, development means change plus growth. Weidner defines it has 'a process of growth' in the direction of modernity and particularly in the direction of nation building and socio-economic progress. To T.N. Chaturvedi it is a process which stands for, 'transformation of society'. Fred W.Riggs defines development in terms of rising levels of autonomy for discretion in the sense of ability, to choose among alternatives, not, of course, in the sense of caution or moderation. He introduces the concept of development as an increase in the level of discretion of the social system". His, definition first stresses 'the growth' made possible by the autonomy of the social systems which (social system) can transform or reshape their environments. Second, it emphasizes, 'performance values', that is increasing inefficiency, reducing costs, improving the machinery of production, of government, of administration. Third, it stresses 'justice, values of freedom, independence, equality, change even revolution.' Fourth, it seeks to restructure 'the social system'. Fifth, it involves 'levels of diffraction' which is a necessary condition for achieving autonomy. Riggs says that 'development then involves the ability to choose whether or not to increase outputs, whether or not to raise levels of per capita income, or to direct energies to other goals, to the more equitable distribution of what is available, to aesthetic or spiritual values, or to qualitatively different kinds of output. [3]

Hahn-Been Lee defines development 'as a process of acquiring a sustained growth of a system's capability to cope with new; continuous changes towards the achievement of progressive political, economic and social objections. Lee sees development both as process and purpose.

In brief, development is a process of improving the well-being of the people. It is about raising the standard of the people, improving their education and health and also opening out to them new and equal opportunities for a richer and more varied life. Better health–a longer life with less sickness is crucial to a better standard of living. [4]

Development Phases in India

However, the role and performance of the bureaucracy in India can best be discussed by dividing it in to three main phases. The first phase starts from 1947 and ended in 1950. The second phase starts from 1951 with the inception of imperative planning for economic development and the third phase concerns the post -1991 economic reform era governed by the New Economic Policy (NEP) of 1991, inaugurated by Dr. Manmohan Singh.

With the attainment of freedom from the British in 1947 India started its journey with an under developed economy. However, the first budget of independent India for 1947-1948, was made with the expectation of a depression rather than the persistence and predominance of inflationary conditions. Smartly allied to the various proposals regarding tax concession and government spending was the policy of cheap money. This too was a technique involved from the study of business cycle and its use was more manageable in Western with well-developed money markets and credit system. Cheap money policies were more attractive to such governments not only because of their anti-cyclical influence but also because of relief in the payment of interest on current borrowing as on accumulated debt. In India, the national debt was relatively smaller; the main justification for cheap money would be its utility in facilitating and cheapening credit.

The second phase of developmental strategy in India began with the setting up of planning commission in the year of 1950 through rigorous state intervention. The country during this time was very much eager to give the people the benefits of development as it promised during the freedom struggle. It will be very relevant in this context to clear the meaning of development again in nutshell. Scholars are of the opinion that the term development is multidimensional in nature. To Palmer it is an overall process, with significant social, cultural, political and human as well as economic dimensions. Its use seems to be equal the more prosaic growth or change or transformation and has become increasingly complex in its application.

In the first and second five year plans and the Industrial Policy Resolution of 1956, the first and possibly only comprehensively articulated development strategy for the country was to be found. However, through the formation of the National Planning Committee by the Indian National Congress in 1938, the initial attempt at developing such a prospective was made. A sharp and decisive break from the colonial economic structure imposed upon the country was indicated in the imperatives of fulfilling the aspiration of the people of the newly emergent state. In fact, the act of charting the course of development from a poor agricultural economy to a powerful self reliant industrial power was a challenging task to the economists and planners as well as to the leadership. As an outstanding example of vision coupled with technical excellence, the early planning framework established by these pioneers has gone down the history of economic thought. From 1st to 8th Five year Plans the country India followed the path of state regulated Mixed Economy for realizing the goals of development

However, the development activities of India in the planning process starting from 1951 to 1989 can best be presented with the help of some statistical figures. These are as follows:

Table: 1Estimates of the Marginal Rate of saving in the Indian Economy (1950-1985)

SL. No.	Period	Marginal Rate of Gross Saving
01.	1950/51 – 1960/61	20.0
02.	1961/62 – 1969/70	18.2
03.	1970/71 – 1979/80	26.3
04.	1980/81 – 1984/85	21.4

Source: Estimates are based on date available in the various issues of National Accounts Statistics, Central Statistical Organization, Department of Statistics, Ministry of Planning, New Delhi.

Table:2 Rate of Gross Saving in the Indian Economy, 1951 – 1984.

Sl. No.	Year	Marginal Rate of Gross Domestic Saving
01.	1951/52	9.5
02.	1952/53	9.0
03.	1953/54	9.3
04.	1954/55	11.2
05.	1955/56	12.8
06.	1956/57	12.9
07.	1957/58	11.8
08.	1958/59	11.5
09.	1959/60	12.3
10.	1960/61	13.1
11.	1961/62	13.8
12.	1962/63	14.0
13.	1963/64	14.2
14.	1964/65	14.6
15.	1965/66	15.2
16.	1966/67	15.3
17.	1967/68	14.8
18.	1968/69	14.8
19.	1969/70	15.8
20.	1970/71	16.8
21.	1971/72	16.8
22.	1972/73	17.7
23	1973/74	18.0
24.	1974/75	19.3
25.	1975/76	20.3
26.	1976/77	21.6
27.	1977/78	23.1
28.	1978/79	23.2
29.	1979/80	23.4
30.	1980/81	22.6
31.	1981/82	22.5
32.	1982/83	22.3
33.	1983/84	22.3

Source: Estimates are based on the data available in National Accounts Statistics, (Jan, 1985), CSO, New Delhi; and Quick Estimates of National Income, Consumption Expenditure, Saving and Capital Formation, 1984/85 (Jan, 1986), CSO, New Delhi.

Note: The rate of saving is calculated as percentage of gross domestic product at market prices and has been calculated on a three-year moving average basis.

Table: 3 Trend in Growth Rates of Investment in the Indian Economy 1950/51 to 1983/84 (Per cent Per annum)

Sl. No.	Sector	1950/51 to 1959/60	1960/61 to 1969/70	1970/71 to 1982/83
1.	Total Investment	7.42	4.94	4.94[a]
2.	Public Sector Investment	14.20	3.42	6.87[a]
3.	Private Sector Investment	-	5.99	3.39[a]
4.	Sectoral Investment	-	-	-
5.	Agriculture Total	- 2.89	- 5.81	- 4.68
6.	Public Sector	-	4044	6.48
7.	Private Sector	-	6.38	3.95
8.	Mining	-1.09	4.56	17.20

Sl. No.	Sector	1950/51 to 1959/60	1960/61 to 1969/70	1970/71 to 1982/83
9.	Manufacturing Total	- 11.41	- 5.14	- 4.83
10.	Public Sector	-	5.33	9.22
11.	Private Sector	-	4.93	2.70
12.	Electricity	16.96	7.71	8.65
13.	Railways	15.93	-5.06	3.88
14.	Communications	3.18	9.57	8.55
15.	Other Transport Total	- 10.10	- 3.76	- 3.01
16.	Public Sector	-	8.64	1.24
17.	Private Sector	-	1.31	4.12

Note: Computations are based on the data on gross domestic capital formation at 1970/71 prices available in National Account Statistics, CSO, New Delhi. 1970/71 to 1983/84

Table: 4 Rates of Growth of Price Deflators in the Indian Economy, 1951 to 84 (Per cent Per annum)

Period	Wholesale price index	GDP deflator		Investment deflator
		Market prices	Factor cost	
1950/51 – 1959/60	0.64	0.43	0.37	2.86
1960/61-1969/70	7.41	7.54	7.47	6.30
1970/71-1979/80	8.85	7.78	8.12	9.69
1970/71-1983/84	9.10	8.21	8.46	10.36

Source: Based on the data available in various issues of National Accounts Statistics, CSO, New Delhi, and revised index Numbers of wholesale Prices in India, Monthly Bulletin for March 1985, office of the economic adviser, Ministry of Industry and Company Affairs, New Delhi.
Note: Estimates are trend growth rates based on semi-long functions.

Table: 5 Trends in Indian Exports, 1970-85

Sl. No.	Year	Value of Exports Rs. Crores at Current price	Quantum index of exports [a]	Net terms of trade [a]
1.	1970/71	1,535.16	106	106
2.	1971/72	1,608.20	107	116
3.	1972/73	1,970.80	120	124
4.	1973/74	2,523.40	125	106
5.	1974/75	3,328.80	133	77
6.	1975/76	4,036.26	147	70
7.	1976/77	5,142.30	174	77
8.	1977/78	5,404.26	168	95
9.	1978/79	5,726.07	180	90
10.	1979/80	6,418.43	199	66
11.	1980/81	6,710.70	238	58
12.	1981/82	7,805.90	198	76
13.	1982/83	8,803.31	210	79
14.	1983/84	9,872.10	n.a	n.a
15.	1984/85	11,554.78	n.a	n.a

Source: Economic Survey (various issues), Ministry of Finance, New Delhi.

Note: One crore equal ten millions.
[a] Base 1968/69=100 n.a. = Not available

Development Experience in India in The Post-1991 Economic Reforms Era:

Post independence period of India was one on the classic cases of dirigiste economic development. Not only was the state highly interventionist, but the economy acquired sizeable public sector, especially in areas of infrastructure and basic industries. The mixed economy which came into being, together with the fact that the polity was characterized by multiparty parliamentary democracy with a largely free press and significant freedom of expression invented the Indian experiment with a novelty and uniqueness which attracted worldwide attention and gave rise to a vast theoretical literature. Not only did a rich literature on development planning take shape within India, starting with the celebrated plan models of P.C Mohalanobis who was a pioneer theoretician of Indian Planning but the class-nature of the Indian state, the class character of Indian planning etc. became a matter of intense debate, especially in Marxist and radical circles both within the country as internationally. [5]

During the early 1980's and the early 1990's in nearly every developing country of the world, short-term stabilization measures, liberalization efforts and economic reforms have been considered, attempted or adopted. Despite its different variations in the details of the programme being sponsored, all the programs virtually aimed at a reduced role of the state in the economy, particularly in the area of expenditures and ownership of productive enterprises. They have focused their attention on market mechanism, especially in the areas of exchange rate adjustment, trade, liberalization and the use of subsidies. Such a strategy under the rubric of Structured Adjustment Programme (SAP) has made use of trade, fiscal and monetary policies to restore balance of payments, equilibrium and stimulate growth in developing societies. [6]

Structural adjustment was thus conceived in terms of reducing a country's balance of payments deficits, by curbing domestic demand and stimulating exports. The aim was to curtail domestic output to reduce demand for imported raw materials and investment goods. While the emergence of the acute economic crisis in the late 1970's and the early 1980's in most developing countries provided the immediate justification for the adoption of the new adjustment policies, some other major weakness in their development policies which constituted structural barriers to efficiency and sustained rapid growth were also responsible for this trend. These included excessive taxation of agriculture, indiscriminate protection of industry. Over-valued exchange rates, extensive state intervention in resource allocation by administrative means, inefficiencies in state enterprises and widespread corruption and management. The adjustment has far reaching ideological implications in moulding development policies.[7]

Different countries in the various regions of the world responded to these policies in different and even contrasting ways and for diverse reasons .Policy changes in most Asian and African countries occurred due to the continued economic crisis because of the weakness in their former policies of economic management and the pressures exerted by creditor countries, commercial banks, international financial agencies, and transnational corporations. India responded to the structural adjustment programme only in 1990's.

The new strategy for development for India was found in the New Economic Policy (NEP) adopted in the month of July 1991.The policy marked a radical departure so for as the question of state's intervention in the nation building process of the country was concerned. India turned a new page in its administrative history with the adoption of New Economic Policy thereby committing herself to liberalizations, privatization and globalization, thus making a quantum jump from the hitherto dominant role of command economy. Therefore, India's transition in 1991 to a regime of Structural Adjustment was an event of great historical significance.[8]

The basis of Indian New Economic Policy formulation was radically altered in July, 1991. Following this a whole range of new policies govern the country's economic life .The rapidity and the sweep of the changes not only left the common men confused and bewildered and even most economists do not fully comprehend what is going on .It could have been different if a wide ranging debate had preceded the implementation of the new package of economic policies. [9]

The very concept of new economic policy was characterized by three important dimensions. These were liberalization, privatization, and globalization. It opened up floodgates for the Multi National Corporations (MNCs), Transnational Corporations (TNCs) and almost completely privatized the production and distribution system. It constituted a complete departure from the policy perspectives of the fifties. Foreign exchange crisis was described as the crux of the present grave economic crisis which led to the devaluation of the rupee, sending out gold and new look budget (1991-94) was adopted to suit the philosophy of the International Monetary Fund from whom large chunk of fund was borrowed. Debate still persists today whether the foreign exchange crisis was really so crucial for the functioning of the Indian economy, and if with some corrective measures, and without undertaking such a somersault an economic policies as was done, the situation could have been retrieved, while the problem of poverty and unemployment deteriorated during the eighties and looked more serious, economic problems were mounting rapid and excessive privatization led to an accentuation of the unemployment problem in India despite the measures announced by the finance Minister, Dr. Manmohan Singh in his budgets.[10]

The new economic policy of 1991 brought into being another silent revolution, a new freedom from the past, orthodox and strain–jacketed ideology and protective economic strategy. Liberalization broke the barrier; it opened up the economy, it exposed the world market, it unleashed competition, it made Indian economy one of the global players. The new policy has in one stroke, brought in an environment characterized by among others;
i) Decontrol and Delicensing ii) Debureaucratisation ; iii)Denationalization and Privatization; iv) Internationalization-fluidity in geo-economic reality; v) Globalization of competitions; vi) Financialisation; vii) Technology invasion; viii) Information explosion; ix) Communications revolution; x) Transnational organizations; xi) New skill generation and diversification; xii) Quality concerns; xiii) Time cost schedulisation; xiv) Organizational restructurisation; xv) Human administration.[11]

There may be indeed are many other impacting factors which must follow the trail of liberalization since 1991, there has been conscious effort made by the Government of India to change the forces of macro-economic policies, so as to make them, consistent with the larger programme of economic reform. [12]

In the Indian economy, public control and planning always played a crucial role in defining the limits of market based activities. The current phase of economic reform sought to alter the Division of Labour, so to say between the market and the state. The compulsion to undertake the changes was largely due to the pressure of the IMF and the World Bank. It was also, however, determined by the pressures from a growing and articulated middle class with growing internationalities. [13]

Economic policy reforms consist of two distinctive standards, stabilization and structural adjustments, based on prescriptions from the IMF and the World Bank. India began both these programmes in 1991, stabilizations deals with demand management while structural adjustment deals with the sectoral policies designed to address problems of the supply side in the economy. Structural adjustment entailed major policy shifts to allow markets to determine prices and reflected scarcely values even when the prices were controlled. This means allowing markets the freedom to allocate resources and getting prices right. It also entailed a shift of resources from government control to private needs, in short, privatization. These changes in turn imply that the government must redefine its role in the development political and carry out institutional and factor market reforms consistent with its new role. Simultaneously, trade liberalization meant a systematic shift of resources from the non-traded to the traded goods sectors. These reforms were expected to take time, careful sequencing in terms of timing and magnitude of change, depending on the country's level of political tolerance for rapid change, and the perceived level of costs of rapid change, and the perceived level of costs of adjustment. [14]

The reforms did away with the Licence Raj, reduced tariffs and interest rates and ended many public monopolies, allowing automatic approval of foreign direct investment in many sectors. Since then, the overall thrust of liberalisation has remained the same, although no government has tried to take on powerful lobbies such as trade unions and farmers, on contentious issues such as reforming labour laws and reducing subsidies. By the turn of the 21st century, India had progressed towards a free-market economy, with a substantial reduction in state control of the economy and increased financial liberalisation. This has been accompanied by increases in life expectancy, literacy rates, and food security, although urban residents have benefited more than rural residents

To facilitate such changes and build the desired and required climate of macro-economic stability, the programme of stabilization was carried out as a precondition. Stabilization sought to use macroeconomic fiscal and monetary policies to deflate demand and short turn aggregate supply.[15]

Conclusion

It is clear that the objective conditions of the economy of India are quite different today from what they were in the mid-fifties and it is a sheer mistake to expect that a strategy which was valid then would still continue to be valid now. What happened, however, is that only periodic marginal adjustment to certain policy parameters have been made from time to time for addressing short-run problems. It is obvious that such patchwork tinkering will not do any more. The Indian economy suffered from want of a viable development strategy that is suitable for the objective socio, economic condition of the country. Such a development strategy must address the minimum socially necessary objectives. Poverty and unemployment continue to be the most crucial persisting problems which are intimately interlinked. Poverty is a widespread phenomenon and the kulakisation of Indian agriculture poses grave implications for such poverty of disadvantaged groups.

References

- "Independent Commission on International Development Issues" (Under the Chairmanship of Willey Brandt) in North-South: A Programme for Survival, (London, Pan Books, 1980), p. 48.
- Uphoff, Norman T. and Ilchman, Warren, F.(1972) The Political Economy of Development: Theoretical and Empirical Contributions, (California: University of California Press), p. ix.
- Weidner, Edward, W(1970) "The Elements of Development Administration" in Weidner's (eds.): Development Administration in Asia, (Durham: N. C. Duke University Press,), p. 8.
- Chaturvedi, T. N.(1978) "Development: The Dynamic Thorns and Thistles", in Sudesh Kumar Sharms's (ed.): Dynamics of Development: An International Perspective, (Delhi: Concept), Vol. 2, p. 693.
- Bhattacharyya, Dhiresh(1986) India's Five Year Plans: Ninth edn. (Calcutta: Joydurga Library), pp. 124-45.
- Bhattacharyya, Dhiresh, op. cit., No. 5, pp. 136-38.
- Chakraborty, Nikhil(1990) "A Recipe for National Disaster" in The Telegraph, (Calcutta, July 8, 1990).
- Banerjee, M(1988) Planning in India, 2nd edn. , (New Delhi: Oxford and IBH), p. 21.
- Kurien, C. T(1993) "India's Economic Reforms in the Context of Emerging Global Economy" in Economic and Political Weekly, pp. 625-58.

- Kumar, Arun(1993) "Economic Policies: An Assessment" in Economic and Political Weekly, pp. 2735-37.
- Ray, Samirendra N. : Op. Cit., No. 17, pp. 71-72.
- Kumar, Nagesh(2005) "Liberalization, Foreign Direct Investment Flows and Development: Indian Experience in the 1990s', Economic and Political Weekly.
- Sinha, Anup(1994) "Economic Reforms and Macro Economic Policy" in Economic and Political Weekly (April, 16-23, 1994), pp. 945-48.

GENDER WAGE GAP IN PUNJAB: AN EMPIRICAL ANALYSIS

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Abstract

Gender Gap exists in almost all the nations of the world with respect to one or another indicator of social, economic or political sphere. It is the womenfolk who is in the disadvantageous position and lacks access to similar social as well as economic opportunities. However, they face the gender discrimination and disparity with respect to employment, wages as well as facilities and job opportunities in the labour market. Differentials in wage structure prevail in all the sectors, occupations and tasks within each and every labour market in all the areas. In case of the Indian labour market, women are not only put in low wage jobs but also paid less remuneration than men. Undoubtedly, wages and incomes in India have been rising over time; but still the gender wage inequalities persist in the labour market. Likewise, large variations in this respect exist among all the states of India. While analyzing the case of Punjab's labour market, it is determined that with respect to female workers and the gender wage gap, Punjab is placed on the third last (13.9 percent for FWPR) and fourth highest position (41.6 percent) among all the states and UTs respectively. So, the situation of de-feminisation in employment is the major concern for the Punjab's economy. So, in this paper an attempt has been made to analyse the gender gap in employment and earnings.

Introduction

Gender Gap exists in almost all the nations of the world with respect to one or another indicator of social, economic or political sphere. It is the womenfolk who is in the disadvantageous position and lacks access to similar social as well as economic opportunities. However, they face the gender discrimination, disparity with respect to wages as well as facilities and job opportunities in the labour market. The existence of a discrepancy in wage payments between men and women in the labour market is a universal phenomenon, regardless of the economic structure of the country (Newell and Reilly 2001). Moreover, gender discrimination among women is more identified in terms of wage rate differentials (Collier, 1994) and it is an important concern among the developing countries. Furthermore, unlike developed nations, women in these countries not only suffer from differential wage rates, but also unequal access to wage employment (Yasin, Chaudhry and Afzal 2010). So far as India is concerned, gender gap as well as discrimination is quite high as the nation is placed on 145th position for the labour force participation and thus, the rank with respect to global gender gap index is 112th out of 153 countries (Global Gender Gap Index, 2020). Despite of various measures to prevent discrimination against women workers, there still exists a wide gender pay gap in India and in fact no country has been able to close the gender pay gap completely (Tijdens and Klaveren, 2012).

To explain the wage determination in the labour market, most of the theoretical analysis has proven to be inadequate and thus, many challenges are still there regarding wage discrimination and wage inequalities (Remesh, 2000). So, measuring discrimination is an empirical challenge because the existence of the gender wage gap does not necessarily indicate discrimination and cultural bias against women. However, it is measured by the pay differential between male and female workers of the same abilities in the same occupations. It is the sorting of the male and female workforce into "male jobs" and "female jobs", i.e., occupational segregation, where females are more concentrated in lower paying jobs.

The organised/public sector/ government jobs have a predetermined wage scale structure, and in the private sector organised jobs, payments are closely and loosely tied to these wage scales. But wages in the informal sector, are paid at time rates, piece rates, fixed contracts for specific tasks, in cash or in kind or a combination of both. Labour with different human capital attributes are also paid the same or similar wages, contesting the potential of labour supply capability traits as an explanation for wage differentials. Under these circumstances, gender differentials in wage payments, especially among workers with the same levels of educational attainments and for undertaking similar jobs are a clear indication of discrimination against women due to non-economic considerations (Becker, 1957; Phelps, 1972; Stiglitz, 1973; Rubery, 1987). Differentials in wage structure prevail in different sectors, occupations and tasks within any local labour market, be it in rural villages or urban towns and cities. In the village rural labour market context, the daily wage rates for casual labourers in agriculture are closely tied to the daily wages paid in non-agricultural activities.

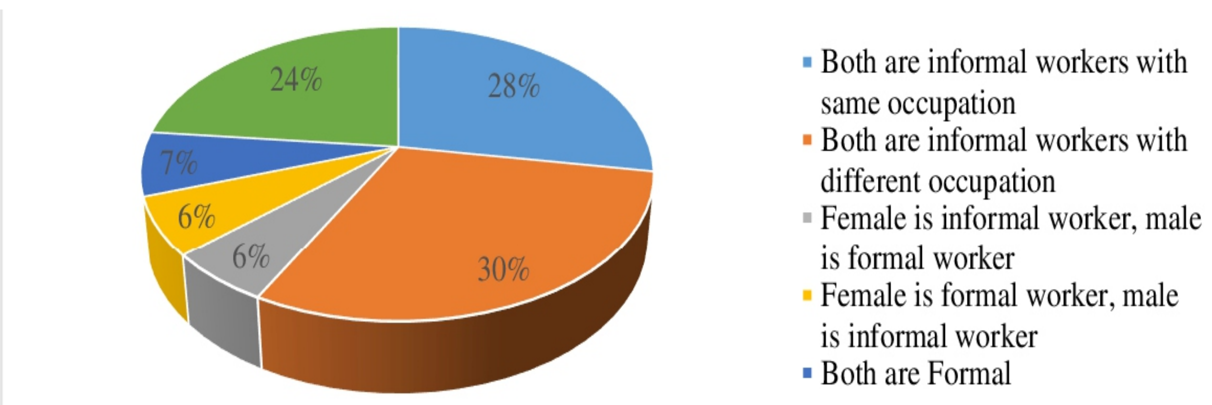
In this paper, the gender wage gap in Punjab State of India is analysed. The gender wage gap among the female respondent workers and male family members of the households in the different categories of occupations in the informal sector as well as in the formal sector is determined. As well as, the female to male average monthly earnings ratio is investigated. For the purpose, the primary as well as secondary data have been used. Primary data is collected from the 300 female workers in the Punjab state. For this purpose, three districts- Mansa, Sangrur and Patiala are selected on the basis of female work participation rate in the districts of Punjab. From each of these districts, 100 working female respondents are randomly selected. Both the rural as well as urban areas are covered for the purpose. Secondary data is taken from the various sources such as Census reports, Economic Surveys, NSSO reports, Statistical Abstracts of Punjab. However, in order to find out gender wage gap among the informal as well as formal workers, the case of only those 230 respondents is discussed whose male family members are also working.

Gender wage gap in Punjab

In the Indian context, the status of women is improving, but they are still far from achieving equivalent socio-economic status as their male counterparts enjoy. Moreover, the discrimination against women on various fronts continues to occur. Their participation in economic activities is not only less, but the LFPR of women in India has been constantly declining since 1991 when it was 36 percent and reached to 20.7 percent during 2019 (The World Bank, 2016). This identifies that half of the potential talent base in India is under-utilized (Zahidi& Ibarra, 2010). In the labour market, women are not only put in low wage jobs, but also paid less remuneration than men. Wages and incomes in India have been rising over time; however, the gender inequalities have not been bridged (Jose, 1987; Dev, 2002; Maatta, 1998). There is a concentration of women in some major comparable female jobs in different countries of the world. In India, nursing has maximum feminisation (93 percent), teaching (28 percent), maid and housekeeping related services (53.2 percent), tailoring services (11 percent) have a moderate amount of feminization (Anker, 1998). Similarly, there are some masculine jobs with high concentration of male workers like civil engineers, pilots, drivers, etc. Even though all these forms characterize gender based discrimination, each of them is caused by different stimuli and, therefore, needs different institutional treatments. The issue of wage inequality is also central to United Nations' Sustainable Development Goals (SAGs), "decent work for all women and men, and lower inequality, as among the key objectives of a new universal policy", which highlight the importance of measuring and devising a mechanism to reduce the pay gap (ILO, 2016). While the quality of employment has declined in the last two decades, the diminution in the number of jobs created has also contributed to rising inequality. Against almost 10 million in the working age-group, entering the labour force, the annual job creation in the economy in recent decades has been for 2 million workers (India Inequality Report, 2018). The declining female LFPR, along with the gender wage-gap and unequal access to decent employment opportunities, has exacerbated the economic and social disparity on gender lines. Large variations in this respect exist among all the states of India. Punjab is placed on the third last position with respect to female work participation rate, i.e. 13.9 however; it is more than 50 percent for males. The women workers face the situation of wage and income inequality. No doubt, the position of female workers in the state with respect to the organized sector is better as compared to that of the other states. However, despite of its better economic conditions, the informalisation and casualisation have been increasing these days in the informal as well as formal sector. So, the situation of de-feminisation is also faced by the Punjab's economy.

How the gender wage discrimination and disparity exist is explored on the basis of earnings of respondents and their male counterparts. Female respondents are categorised on the basis of various criteria such as: (i) male members in the family are working within the same informal sector and (ii) different occupation in the informal sector; (iii) with one of them is formally employed and (iv) both of them are formal workers. Figure1 shows that out of the total sample, the majority (58 percent) of the respondents are involved in the informal sector, which includes 30 percent of the male counterparts with different occupations in the informal sector while 27 percent with the same type of occupation. However, less than one-tenth (7 percent) of them is formally employed. On the contrary, 11 percent is such cases where one of them is formal and the other is informally employed. Nonetheless, 24 percent are those respondents who are the sole earners i.e. they don't have any male earning member in the family. Furthermore, more than half of the total respondents are wage/salaried workers, followed by slightly more than one-fourth are self-employed and less than one-fifth are casually employed. Thus, female workers as well as their male counterparts in their households are mostly engaged in the informal sector in Punjab. However, the majority is wage/salaried workers, followed by self-employed and casual workers.

Figure1: Distribution of the Respondents and their male earner counterparts in different groups among different type of works in Punja



Source: Field Survey: 2015-16.

Table 1 presents the number and percentage of female respondent workers and the male working members in their family in different sectors and categories of work in Punjab. The figures show that the three work categories and two occupational sectors i.e. self-employed, wage/salaried workers and casual workers respectively engaged in formal and informal sector. Respondents are categorized into six groups. In the first two groups, both the counterparts are informal workers while in the fifth group, both are formal workers. Third and fourth groups relate to those types of respondent workers' and their male counterparts where one of them is formally employed and the last group of only female earners for whom no male earner member in their family. Further, in the first group, both female respondents as well as male members in the family are informal workers with same type of occupations. However, they are engaged in different occupations in the second group. While discussing the group-wise picture of the respondents and their male counterparts, it is found that a large chunk of the respondents whose husband/father (whosoever is a main male member worker) is self-employed (37) while the proportion of the salaried and casual workers constitute the same number i.e.23 in the first case. The second case depicts that most of the households are such in which both female respondents as well as male member workers are informal sector workers involved in different type of occupations. It shows that the majority of the respondents (61 percent) are salaried workers, but their counterparts are either self-employed or casual workers, followed by self-employed (31 percent) or casual workers (8 percent). While exploring the case of a female informal worker and male formal worker in the family, it is found that among them majority is salaried workers while slightly less than one-fifth of them are self-employed and none of the female respondent is casual worker whose male family member is formally employed. So far as, the case of formally employed female workers and informally employed male member of the family is concerned, it is demonstrated that the majority of such cases where males are self-employed (68.4 percent), while about one-fourth of them are salaried workers (26 percent) and only 5 percent are casual workers. On the contrary, there are only 22 female respondents who themselves and their male counterparts are formally employed. However, out of the total sample of 300 working women, 70 female respondents are sole earners and among them about three-fourth are salaried workers, while 15 percent are self-employed, followed by casual workers (11.4 percent).

Table1: Number and Percentage of female respondent workers and their male counterparts in different sectors, among different type of works in Punjab

Occupations of respondents and their male family members	Self Employed	Salaried Workers	Casual Workers	Total
Both are informal workers with the same occupation	37 (44.58)	23 (27.71)	23 (27.71)	83 (100.00)
Both are informal workers with the different occupation	28 (31.11)	55 (61.11)	7 (7.18)	90 (100.00)
Female is informal worker, male is formal worker	3 (17.65)	14 (82.35)	0 (0.00)	17 (100.00)
Female is formal worker, male is informal worker	13 (68.42)	5 (26.32)	1 (5.26)	19 (100.00)
Both are Formal workers	0 (0.00)	21 (100.00)	0 (0.00)	21 (100.00)
No male workers in the household	11 (15.71)	51 (72.86)	8 (11.43)	70 (100.00)
Total respondents	92 (30.67)	168 (56.33)	39 (13.00)	300 (100.00)

Source: Field Survey: 2015-16. Brackets show percentage figures.

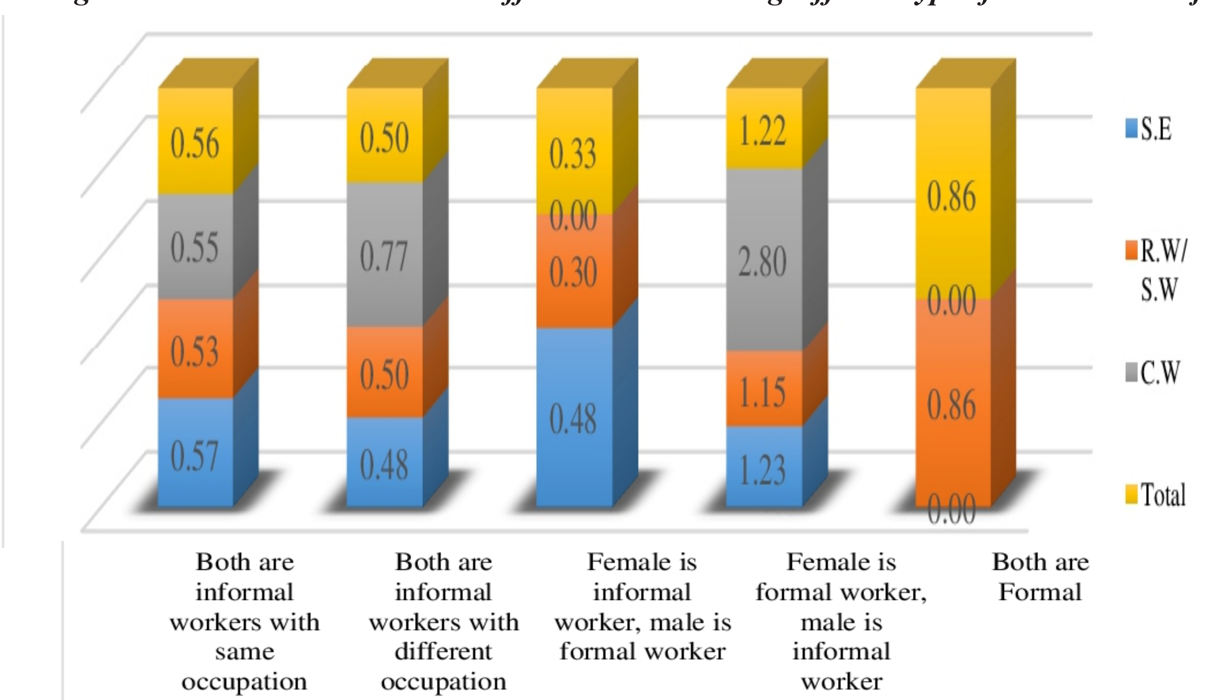
Female to Male Earnings Ratio

The extent of the gender wage gap is measured in the Figure 2 which shows that the female to male earnings ratio is less than one in each and every group except in the category when alone women are formal workers in the household. The earnings of women as compared to men in the labour market in all the developed as well as developing countries of the world are much lesser irrespective of their similar education level, occupation sector, work experience and working hours. However, in some European and Non-European countries, gender wage/pay gap is showing a better picture in recent years like in Lithuania, the largest decline in pay differences between women and men was observed, where women's earnings were 78 percent those of men's in 2007, and 88 per cent in 2012.

However, the largest increase in gender differences in earnings was recorded in Portugal, where women's earnings were 91 percent of men's in 2007, dropping to 86 per cent in 2012. Among the Non-European countries, the difference in earnings between women and men was the largest in Pakistan, where women earned only 63 percent of what men earned in recent years. The largest increase occurred in Ireland, Japan and the United Kingdom, where the ratio of women's to men's earnings increased by more than 10 percentage points (GGGI, 2017).

While examining the female to male average earnings ratio in different groups in Punjab state of India, this research study found that the ratio of women worker respondents' earnings is quite less (55 percent) than that of men's earnings in the informal sector in the family. It is about one-third in the case of female informal and male formal workers while this ratio is more than one in case female formal and male informal workers. Nonetheless, the gender pay gap also exists and the earnings of female respondents is 86 percent of the earnings of male member workers in the households when both of them are formally employed. While exploring the group-wise and occupation-wise f/m earnings ratio, it is demonstrated that in the first group, the extent of the earnings of the respondents lies between 53 percent (wage/salaried) to 57 percent (self-employed) of the earnings of male members. In the second group, it is varied widely from 48 to 77 percent. It identifies that in the informal sector, respondents earn only about half of the earnings of their male earner members except for casual work in the second group. In the third case, respondents are informal while their male counterparts are formal workers; the huge difference is noticed among the earnings of both the sexes where one of them is formally employed. Wage/salaried respondents earn only 30 percent, while self-employed earn 48 percent of the earnings of the male earner members in the family. The gender wage gap is in favor of those respondents who are formally employed, while their counterparts are in the informal sector. On the conversely, earnings of both the counterparts is higher in the formal sector, but still gender wage gap is there. In this case, the earnings of the salaried respondents are 86 percent of the earnings of their male family members.

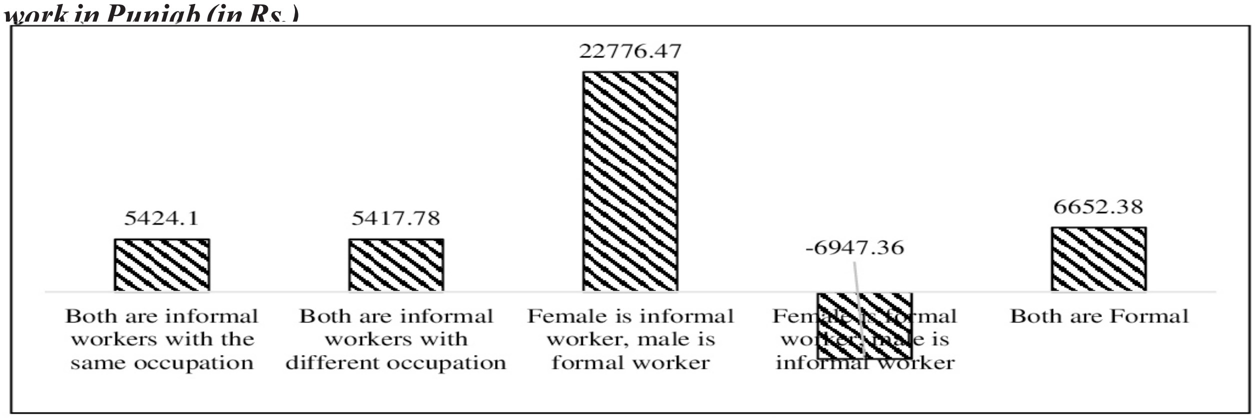
Figure2: Female to Male Ratio in different sectors among different type of workers in Punjab



Source: Authors' calculations. Data Base: Field Survey: 2015-16

The picture of the gender wage gap among the female respondent workers and their male earner members in the family is portrayed in Figure3. It exposes that the gender wage gap in all the groups is of high range. But for the first group in which category of female informal workers and formally employed male family members, the wage gap is the largest (Rs. 22776.47), followed by the gap in case when both the sexes are formally employed i.e. Rs. 6652.38. While comparing the first two groups related to informal sector workers, it is slightly higher in the first case in which both of them are in the same type of occupation (Rs.5424.1) than those in the second category in which both of them are in the different occupation (Rs. 5417.78). Thus, a higher gender wage gap mostly in favour of males exists in all the groups of the workers irrespective of formal and informal sector. But the opposite is the case for female formal and male informal workers where the gender wage gap is (Rs. -6947.36).

Figure3: Total Gender wage differentials among the different occupations and sectors of work in Punjab (in Rs.)



Source: Authors' calculations, Data Base: Field Survey: 2015-16.

Conclusion

It is accomplished that the gender wage gap prevails throughout the world, but the situation of India is worse. Women face wider inequalities in all the social, economic as well as political spheres. However, in the economic participation, they face inequalities with respect to the gender wage gap in all the sectors, occupations and areas. They are paid less and most of them work without any social security or other benefits. Among the Indian states, Punjab is placed at a very low rank with regard to female work participation rate. Furthermore, the female workers are paid much less as compared to their male counterparts. Female workers in all the sectors and occupations face gender wage gap. They earn very less as compared to their male earner members in the family. Hence, a very low female to male earnings ratio is noticed among the household workers of the state except one group where females are formal while male members are engaged in the informal sector. Despite of the same education and sector of work, they are discriminated may be due to the lack of skills and potentials. Thus, to enhance the female earnings and to bridge the gender wage gap, there is a need to focus on the employment opportunities for females in the organised sector. In the informal sector too, they should be provided the maternity leave and parental leave to make them continue in the labour market. The government must provide them with childcare facilities in the workplace also. Last but not the least, as the gender wage gap remains a matter of concern. So, the center as well as state government should target the policies in favor of females.

References

- Becker, G.S. (1957), The Economics of Discrimination. University of Chicago Press, Chicago.
- Census of India. (2011), Register General and Census Commissioner India, Ministry of Home Affairs, GOI, New Delhi.

- Chowdhary, A (2014), Microsoft CEO Satya Nadella Apologizes for Comments on Women's Pay.
- Collier, Paul (1994), Gender Aspects of Labour Allocation during Structural Adjustment: Theoretical Framework and the Africa Experience in Labour Markets in an Era of Adjustment, Vol. 1, Ed. by Susan Horton, R. Hanbur, and D. Mazumbur (Washington: World Bank).
- Dev, S. Mahendra (2002), Pro-Poor Growth in India: What do we know about the employment effects of growth 1980-2000? Working Paper No. 161, Overseas Development Institute, London.
- Global Gender Gap Report (2020), World Economic Forum, Geneva. pp.185.
- Jose, A.V (1987), Employment and Wages of Women Workers in Asian Countries: An Assessment, Asian Employment Programme Working Paper, ILO-ARTEP, New Delhi.
- Matta, Paula (1998), Equal Pay Policies: International Review of Selected Developing and Developed Countries. Working Paper No. 3, Labour Law and Labour Relations Programme, ILO, Geneva.
- Newell, A & Reilly, B. (2001), The Gender Pay Gap in the Transition from Communism: Some Empirical Evidence. Economic Systems Vol. 25(4), pp. 287-304.
- Phelps, E.S (1972), The statistical theory of racism and sexism. American Economic Review 62(4), 659–661 Empirical Evidence, Economic Systems, Vol. 25 (12), pp. 287-304.
- Remesh, Babu P (2000), Rural Wages: On Developing an Analytical Framework. NLI Research Studies Series No. 007, V.V. Giri National Labour Institute, Noida.
- Rubery, J. (1987), Women's Wages in Eatwell, J.; Milgate, M. and Newman, P. (eds.), The New Palgrave: A Dictionary of Economics, Macmillan Press, London, pp. 929-32.
- Stiglitz, J.E. (1973), Approaches to the Economics of Discrimination, American Economic Review, Papers and Proceedings, Vol. 63, (2), pp. 287-95.
- Tijdens, K.G. & V. Klaveren, M. (2012), Frozen in time: Gender pay gap unchanged for 10 years. Brussels, International Trade Union Co-Integration.
- World Development Report (2016), Digital Dividends. International Bank for Reconstruction and Development / The World Bank, Washington DC.
- Yasin, Chaudhry and Afzal (2010), The Determinants of Gender Wage Discrimination in Pakistan: Econometric Evidence from Punjab Province", International Research Journal of Finance and Economics, Issue 55
- Zahidi, S. and Ibarra, H. (2010), The corporate gender gap report, Geneva: World Economic Forum.

WATER PROBLEM IN THE CITY BEAUTIFUL CHANDIGARH

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Abstract
Water is one of the key resources for sustainable urban development. It is required for the domestic, commercial, industrial and horticulture purposes. The present paper is concerned with the problem of adequate water supply in Chandigarh. It discusses water sources of Chandigarh, water distribution system, changes in the consumption of water and gaps in the actual demand and supply. The measures of the Chandigarh Administration to cure the water scarcity in the city have been studied. Chandigarh is developed as a green city having a linear of parks and landscapes that even need more water for the irrigational purposes. To investigate in the issue of water, the research paper used various administrative records and reports. The statistics have been critically analysed to seek in the problem.
Keywords: Chandigarh, water, administration, green city

Introduction

Chandigarh was built as the new capital of East Punjab after the partition of India and the loss of Lahore. It was the symbol of the newly acquired independence, the future, the hopes and aspirations of the nation and the free choice of the nascent republic of India. The idea of Chandigarh did not originate in one day or by any one person but was a steady evolving of ideas and plans mulled over and implemented over several years before it took actual shape. While planning the city of Chandigarh the availability of suitable and sustainable source of water supply was one of the most important matters which received consideration of the planners. Even M.S. Randhawa advised abandonment of this site on the issue of water supply. Tube-wells did not seem to be a practical possibility as rock was likely to be encountered fairly high due to the proximity of this area to the Himalayas. In order to prevent water shortages in the future Randhawa suggested only a river or a canal could supply the water requirements of a big population. Water was essential not only for the consumption of human population but also for the irrigation of parks and gardens.

Research Methodology

The present paper seek the problem of water in Chandigarh since its inception. It used numerous records and reports while planning of the city, administrative statistics of Municipal Corporation and newspaper clips. The data has been evaluated to find out some solutions from the past.

The selected site for Chandigarh has no natural surface water source. During the course of water findings, M.S. Patnayak surveyed several villages around Chandigarh like Darrah, Mansa Devi Temple area, Bhaisa Tibba, Suketri, Kaimwala, Mani Majra, Mauli, Budenpur, Chota Raipur, Chandpur, Bhabat, Bajwara, Rurki, Kailar, Shahzadpur, Kalibad, Kansil, Bhangi Majra, Nagla, Nabha and Chandigarh. He had placed the water sources into four classes on the basis of availability of volume of water. In Class I the areas where near about a lakh of gallons per hour, Class II near about 60,000 to 80,000 gallons per hour, Class III near about 40,000 to 50,000 gallons per hour and Class IV Near about 20,000 gallons per hour.

It was estimated that the city would require 6 cusecs of water for domestic purposes and 20 cusecs for the irrigation of 8000 acres by the end of 1955. For the domestic use city was to be relied upon tube wells and for irrigation purposes on the river Ghaggar. The discharge of the river varied considerably ranging from 60 cusecs to over one lakh cusecs during the monsoons and it was lowest during the summer season. Surplus water in the river was proposed to be stored during the monsoon in a reservoir by a dam on Sukhna Cho near Suketri village. It might also be possible to save water through the existing Kuhls by lining and improving them. Altogether there were 15 Kuhls in this area; five were perennial while the others get water only during the monsoons. Accordingly, a detailed plan of the Kuhls had been prepared and a hydraulic survey was completed for five of the Kuhls. But these could not fulfil the demand of water for a long time.

Tube wells remained an important source of water supply in Chandigarh till 1970s. There was no shortage of water up to 1970 when 284 millions of gallons per day was available from 76 tube wells against the demand of 271 millions of gallons per day. It was due to the fact that during this period open spaces were under development and all of the sectors were not inhabited yet. But in the coming years water requirements increased with the increase in population, growth in its area and development of the city. Due to continuous taping of underground sources, water level started depleting in the area and thus it was not possible to depend on the underground water source alone for the entire water requirements in the coming future. The exploding population forced the administration to look for a surface water source to supplement the ground water supply. The idea of constructing a dam on Ghaggar was also mooted but this project could not make any head way. In 1978 Chandigarh Administration negotiated with Punjab and Haryana to provide additional water to the city. In 1983 an agreement was signed between Punjab, Haryana and Chandigarh to tap canal water from Bhakra Main Line which was flowing at a distance of 27.5 km from the city.

Accordingly Chandigarh Administration commissioned the first phase of Kajauli water works from Bhakra Main Line at a cost of Rs. 12.95 crores born by the Government of India in the Ministry of Urban Development. Under this scheme water was also shared by Mohali and Chandi Mandir Cantonment. In each of these phases, Chandigarh shared 14.5 MGD of water with 3 MGD in addition from Punjab; Mohali shared 2.5 MGD and Cantonment shared 1.5 MGD. The share of Panchkula (1.5 MGD) is used by Chandigarh as Panchkula has not been availing its share. Since then three similar phases had been commissioned in 1988, 1994 and 2006. Through the development of these four phases Chandigarh got 67 millions of gallons per day (MGD).

From 1966 to 1995 water supply came under the Engineering Department of Chandigarh Administration. Since 1995-96 it came under the Public Health branch of the Municipal Corporation which is responsible for the generation, treatment and supply of water in Chandigarh and villages which are under the jurisdiction of Corporation. It provides water connection to the consumers, replacement of defective water meters and collection of water charges. It is headed by the Superintendent Engineer. There are four divisions each of which is under the Executive Engineer. Each division is further divided into seventeen sub-divisions that work under the supervision of sub divisional engineers. The city has been divided into seven zones for the water supply. The Chandigarh area is sloping from north towards south. The zoning of the city has been made according to its sloping direction. The raw water obtained from Bhakra Canal through Kajauli Water

Works is given conventional treatment in the treatment plants in Sector 39. Water from the treatment plant and the tube wells is pumped into the water works constructed at seven places, where Chlorination of water done and then supplied in the city.

II

There are two types of connections, metered for regular uses and unmetered which were taken for temporary uses like construction and functional. The number of metered connections has been increased from 74,000 in 1990 to 1.27 lakhs in 2010. The consumption was higher for the domestic purposes than the industrial. The proportion of domestic and commercial cum industrial purposes was about 90 and 10 percent respectively in 1990 which had come to 70 and 30 percent respectively in 2010. It means the ratio of industrial cum commercial use has increased.

Increase in the consumption of water was highest from 1990 to 2000, noted 14234 percent. As up to 2000, almost the whole area of Chandigarh was developed and inhabited. Two phases of the city had been completed and third phase is nearly completion. There was a marked growth in the commercial and industrial activities as the consumption for these purposes was only eight thousand kiloliters in 1990 which had increased to 49 lakhs kiloliters. From 2000 to 2010 the increase was 847 percent. However, per capita availability of water came down due to the high rise of population. It was recorded 202 kilolitres in 1985, 97 kilolitres in 1990-91 when the population of Chandigarh Union Territory was 6.42 lakhs; in 2000-01 consumption was 95 kilolitres when the population was nine lakhs and in 2010-11 it was 68.66 kilolitres when its population increased to more than ten lakhs.

As there is continuous increase in the consumption of water in Chandigarh, the gap between the demand and supply of water is also increasing sharply. In 1990, daily demand of water was 90.92 millions of gallons per day against which only 48 millions gallons of water per day was supplied. It fulfilled only 52 percent of the total demand. In 2010-2011 there was a gap of 29 MGD as the water availability was 87 MGD against the requirement of 116 MGD. It meets 75 percent of the total demand. It shows improvement in the water supply. Out of 87 MGD, 67 MGD received from the canal water and only 20 MGD from the underground water. It means almost 77 percent of the water supply received from the Bhakra Canal and the remaining 23 percent from 210 tube wells scattered in and around the city. There is a considerable decline in the groundwater levels of the deep tube wells. In fifteen years from 1991 to 2006, there was a fall of 16 metre in Sector 10 and 10 metre in Sector 31. The remaining parts of the city show an average decline of 5 to 8 metres.

The shortage of available water created severe problems especially in the summer season. The people lived on the top floors suffered seriously particularly in the southern sectors where multi-storeyed flats have been constructed. Residents complained low water pressure in some areas even those who are living on ground floors. The water scarcity will get more worse in the coming years with the population growth and a number of new slum rehabilitation programmes and commercial projects like Medi City, IT park etc. It is estimated that in 2025, the demand of water will increase to 800.75 million litres per day but the supply would be 469.68 million litres per day which means there would be a gap of 331 million litres per day.

In order to bridge the gap, Chandigarh Administration made efforts to bring more water from Bhakra Canal. In 2011 Chandigarh Municipal Corporation made a proposal for the development of Phase V and VI of Kajauli Water Works with the help of Punjab Government. But Punjab did not agree for this proposal at that time. It was only in 2014 when Punjab agreed to supply 40 MGD water to Chandigarh from V and VI phases for which Municipal Corporation has to bear the cost of nearly

Rs. 100 crores.

The Centre for Science and Environment gave suggestion for rainwater harvesting through recharging the deep, confined aquifers; by storing water in tanks or ponds in green areas. It would be a long term solution contributing towards sustainability of water. Municipal Corporation has built such ponds in Botanical Garden. Chandigarh Administration has undertaken artificial recharge of rainwater on a number of sites like in Central Scientific Instrument Organisation in 1998-99; on the roof top of Basic Medical Sciences Block of Panjab University in 2001 and Bhujal Bhawan Chandigarh. Structures have been constructed in Leisure Valley; Chandigarh Housing Board office building, UT Guest House and in various schools and colleges. Sewage water is started to use for horticulture after recycling in the Tertiary Treatment Plant as the water demand for horticulture purposes is 19.43 percent (87.98 MLD) of the total demand. Such water is being distributed to the green areas of Sectors 1 to 12. Municipal Corporation executed a proposal under Jawaharlal Nehru National Urban Renewal Mission (JNNURM) to construct more treatment plants for the use of sewage water for the horticulture, which would save more water for the domestic purposes.

III

It is also important to note the financial aspect of water in terms of water charges and expenses by the administration on water services in the city. Water charges on the public have reflected changes. In 1965-66, the cost of water was 22 paise per kilolitre which was same for all types of uses. In 1978 distinction was made in the water charges for domestic, commercial and industrial purposes. In 1980 different slabs were introduced for the domestic water supply depending on usage. In 1990 water rates for the domestic consumption were 48 paise per kilolitre for the first 25 kilolitres, 65 paise per kilolitre from 25 to 50 kilolitres and 78 paise per kilolitre for the consumption above 50 kilolitres. Water for the commercial and industrial purposes was charged at Rs. 2 per kilolitre.

These rates were enhanced in 2011 under Chandigarh Water Supply Bye-laws, 2011, water consumed for domestic use is being charged at Rs. 2.00 per kilolitre for the first 15 kilolitres, Rs. 4.00 per kilolitre from 15 to 30 kilolitres, Rs. 6.00 per kilolitre from 30 to 60 kilolitres, Rs. 8.00 per kilolitre above 60 kilolitres. All types of institutions including medical, education, hospitals, charitable institutions, coaching centres and *dhobi ghats* charged at Rs. 12 per kilolitre. The government offices are charged at Rs. 14 per kilolitre and industrial and commercial premises are charged at Rs. 15 per kilolitre. Water supply through tankers is charged at Rs. 350 per tanker. Water supply is free for religious functions. Water used for construction, including Government construction is charged at 1.5% of the total cost of construction of the building or as per the actual meter consumption at commercial tariff.

Expenditure on water supply was in the budget of Chandigarh Administration up to 1996-97 after that this service came under the Municipal Corporation. In 1980-81 the administration spent 3.98 crores, in 1985 the amount increased to 6.48 crores, in 1995 to 33.74 crores, in 2000 it was 22.43 crores and in 2005 it was 39.91 crores. The expenses on water supply shares 3 to 7 percent of the total expenses from 1975 to 2005.

Major Findings:

- Water supply from tube wells has declined since the inception of the city as the level of underground water depleted though the number of tube wells has increased. At present time there are 264 tube wells in the city.
- Per Capita availability of water has been declined in the city with the increase of population.
- Demand of water has increased for all purposes like domestic, industrial, commercial and horticulture.
- The major source of water supply is located outside Chandigarh which needs for a constant co-operation with the neighbouring State of Punjab.

In view of these facts more attempts are required for the adequate water supply in Chandigarh. Misuse of water should be checked especially in the slum areas where taps run continuously. The problem of leakage should also be cured. Reduce the demand through the use of water efficient fixtures and water conservation measures. More storage structures should be built for rainwater harvesting which can be in the form of tanks in commercial and institutional areas or ponds in the green areas. Attempts which have been initiated for the recycle of sewage water should be enhanced so that the whole horticultural demands should be completed through the sewage water. The more important will be the awareness among the people of the city to save water for the future.

References

- Objections made by M.S. Randhawa on 16-5-1949.
- Patnayak, M.S. Letter to the Chief Engineer. Punjab on the subject of ground water position in the New Capital area at Chandigarh on 2 June 1950.
- Centre for Science and Environment. (2010). *Capturing Rain water: A way to augment Chandigarh's Water Resources,* 11.
- Meetings of the Chandigarh Capital Project Control Board 27 November 1965.
- *Chandigarh Development Plan,* 38-40.
- *Times of India.* August 16, 1978, 5.
- Centre for Science and Environment. (2010). *Capturing Rain water: A way to augment*
- *Chandigarh's Water Resources*, 12. see also *Twelfth Five Year Plan 2012-2017.* Chandigarh, 271-272.
- Information from the Public Health Department of Chandigarh Municipal Corporation.

  Chandigarh Master Plan 2031. Chandigarh Administration, 207.
- *Chandigarh Statistical Abstract.* 1993 and 2008.
- Calculations have been made on the basis of information in *Chandigarh Statistical Abstract.* 1993 and 2008.
- *Statistical Abstract of Chandigarh. 1993, 2002 and 2005.*
- Engineering Department of Chandigarh Administration and Superintendent Engineer (Public Health), Municipal Corporation, Chandigarh.
- *A Report of the Central Ground Water Board on Chandigarh.* Ministry of Water Resources. Government of India. 2007.
- *Times of India.* 3 June 2012; *Chandigarh Tribune.* 26 August 2013.
- Minutes of 171st meeting the Municipal Corporation Chandigarh held on 28.09.2011, 20.
- *Hindustan Times.* 4 September 2014.
- Centre for Science and Environment. *Capturing Rain water: A way to augment Chandigarh's Water Resources.* 2010. 5.
- *Times of India.* 14 August 1984. 7.
- *Chandigarh Water Supply Bye-laws, 2011.* Local Government Department's notification No.6/1/195-FII (8)-2011/2365, dated 28th March 2011.
- Water expenses have been compiled from the Budgets and the Five Year Plans of Chandigarh Administration.

COVID 19 – ITS IMPACT ON THE INFORMAL SECTOR OF INDIAN ECONOMY

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Abstract
COVID-19 pandemic unbalanced the Indian Economy and has left millions of workers with no job in hand. Undoubtedly it affected all sectors of the economy but the worst hit is the informal sector and has made the things difficult for future. The pandemic has probably been the most devastating of financial and social crisis of recent time leading to a suspension of almost all economic activities and forcing a country wide lockdown. With prolonged country-wide lockdown, the economy is likely to face a sustained period of slowdown resulting into disruption of demand and supply chains. This paper aims to describe the impact of covid-19 on the informal sector of the Indian Economy, policy package by the government, policy recommendations for the informal sector. The data collection was based on the secondary sources.

Keywords: COVID-19, informal sector, migrants, lockdown, crisis, wages

Introduction

In the present scenario, COVID-19 has affected all the sectors of the economy. There is a total disruption of the economy and it cannot be estimated exactly. Its spread in 213 countries and territories and according to the world meter's covid-19 data, there are 15,658,356 million confirmed cases out of which 9,569,762 million people recovered and total reported deaths by 637,238 million by 24th July. Since it is a highly contagious disease and until a vaccine for it is not invented, certain policy actions to curb its spread include: the social distancing, use of face masks, washing hands frequently, self-isolation at home, restrictions on mobility, large public gatherings and public transport and also a country wide lock-down. The pandemic resulted into dual shocks on countries, viz; health shock and an economic shock. It has resulted into immense losses because of closure of industrial production, trade, transportation, tourism, public offices, educational institutions etc. There is fear of a deep and prolonged global recession. . On April 9, the chief of International Monetary Fund, Kristalina Georgieva said that the year 2020 could see the worst global economic fallout since the Great Depression in the 1930s, with over 170 countries likely to experience negative per capita GDP growth due to the raging coronavirus pandemic[1]. The world has witnessed several epidemics such as the Spanish Flu of 1918, outbreak of HIV/AIDS, SARS (Severe Acute Respiratory Syndrome), MERS (Middle East Respiratory Syndrome) and Ebola. In the past, India has had to deal with diseases such as the small pox, plague and polio. All of these individually have been pretty severe episodes. However the Covid-19 which originated in China in December 2019 and over the next few months rapidly spread to almost all countries of the world can potentially turn out to be the biggest health crisis in our history. Many experts have already called this a Black Swan event for the global economy (S.Mahendra Dev)

[1] The name of the virus is SARS-COV-2 (Severe acute respiratory syndrome coronavirus 2) which causes the coronavirus disease 2019 referred to as Covid-19. Accordingly in this chapter we use Covid-19 to refer to the disease. See: https://time.com/5818819/imf-coronavirus-economic-collapse

India recorded the first case of the disease on January 30, 2020. And after that the number of confirmed cases has been increasing steadily and significantly. India has recorded the third highest Covid-19 caseload in the world after the United States and Russia with 1.34 million confirmed cases and more than 31,358 deaths[2]. In order to curb the spread of the virus, the government of India like other countries imposed a nationwide lock-down on March 25, 2020 that continued for two months. As a result of which all the non-essential services and businesses, religious places of worship, educational institutions, in the country remained shut during the lockdown period and all means of travel were stopped, aside from some inter-state transport permitted towards end April and early May to let migrant workers, stranded pilgrims, tourists and students return to their native places. This was the biggest ever lockdown imposed by India than any other country in the world. Later, lockdown was gradually relaxed in a phased manner but it continued in some of the high-risk areas. It was important because the virus was spreading very fast in some of the states like, Maharashtra, Delhi, Rajasthan, Agra, Gujarat, Tamil Nadu etc. This lock- down period in a way was used to prepare the nation to combat this deadly virus. For example, preparing specific COVID-19 hospitals, arrangement of beds, increasing testing facilities etc. But it is really difficult task for a country because as compared with other countries India does not have a very advanced public health care system. The Indian government spends only 1.5% of the total GDP on public health as a result of which the system remains grossly under-prepared to deal with a health crisis such as this[3.]

This paper attempts to assess the potential impact of the crisis on the informal sector of the economy. It also discusses the policies that have been announced by the government as a relief package and finally conclude with few policy recommendations.

Impact of Crisis on the Informal sector

The informal economy drives growth and livelihoods. It supplies labour-intensive exports. It provides the goods and services that COVID-19 reminds us are essential. Its costs and returns provide the structure of costs and prices for the rest of the economy. This sector was earlier badly hit by two consecutive shocks in a short period of time from 2016 to 2019. The first was the Demonetisation shock imposed by the government on November 2016 when nearly 86 % of the money in the economy became unusable overnight. As this sector was unfamiliar with e-tech, unwilling to pay hefty commissions on e-transaction, or to depend on mobile bankers they didn't trust, so the financial condition was affected. At the same time it was followed by the haphazard introduction of the Goods and Services tax in 2017. There was a temporary lack of means of payment and somehow the informal sector bear the shock and manage to come out of it but, with the outbreak of Covid-19, the already
struggling informal sector has been excessively affected. India is now in a new age of policy inaction which matches and responds to the informal economy it does not officially recognises existing. By what it didn't do, by how it didn't mobilise, lockdown was a declaration of war on casual or bonded migrant labour, and a return to the shock tactics of demonetisation.

The informal sector of the country comprises of enterprises which are labour intensive. It includes low-skilled labourers who are furious to work even for minimum wages in order to meet up their subsistence requirements, largely consists of the labour force of unorganised economic activities. Because, unorganised firms work outside of the jurisdiction of corporate law, workers in this sector are denied of any job-security and social protection. Owing to the nation's mammoth population, an oversupply of menial labour is paving the way for easy exploitation on the part of unconscionable entrepreneurs. Informal worker may be defined as a worker with no contract, paid leave, health benefits or any kind of social security. The table 1 depicts a sense of formalisation of the

[2] Data on Indian cases are from https://www.covid19india.org/ and the Ministry of Health and Family Welfare.
[3] .Economic Survey, 2019-20; https://www.indiabudget.gov.in/economicsurvey/

workforce over the period 2011-12 to 2017-18. In terms of the employment share, the unorganised sector employs nearly 83% of the workforce and only 17 % in the organised sector. There are 92.4% informal workers (with no written contract, paid leave and other benefits) in the economy. Also 9.8% informal workers in the organised sectors are designating the level of outsourcing. These perhaps are the contract workers. The share of unorganised sector employment has increased by 3.6 percentage points in 2017-18 whereas the share of formal employment has increased by only 0.9 percentage points.

Table 1 – Distribution of Total Employment (%)Workers2011-122017-18

Workers	2011-12			2017-18		
	Unorganised	Organised	Total	Unorganised	Organised	Total
Informal	82.6	9.8	92.4	85.5	5.2	90.7
Formal	0.4	7.2	7.6	1.3	7.9	9.3
Total	83	17.0	100.0	86.8	13.2	100.0

Source: Computed from NSS 68th Unit Level Data on Employment Unemployment, 2011-12 and Periodic Labour Force Survey, 2017-18.

India has a majority of informal sector, almost largest in the world, employing close to 90% of its working population and contributing more than 45% to its overall GDP. These crisis has pushed around 40 crore informal sector workers in India again into a poverty. Their jobs and earnings are badly hit. Most of the migrants were having no job with the closure of Industrial units, construction work and other occupations. They were in such a miserable condition that many migrant labourers and their families were left to walk to their native places deprived of work, food, water, lodging and shelter and transport, except through some acts of charity and occasional action by states. Many migrant workers were not been allowed to move but instead were imprisoned in factory compounds and quarters, unpaid, poorly fed and prevented from returning home. Some of the migrants walking on foot even died on the way due to hunger, exertion and hot weather. This impoverishment and punishing of the migrant workforce – estimated as at least 20 million in urban areas alone- were assisted by acts of police brutality. They got no support from the government during the initial phase of lockdown period. It was a matter of question that whether these migrants would get any work in their villages in this period of crisis or not but they wanted to unite with their families and bear many hardships to reach their native land. They were of the opinion that instead of dying in urban areas away from their families it would be better to die in their own village. Some of the skilled and semi-skilled workers got work in MNAREGA in villages. After some relaxations in the crisis period some migrants returned to the urban areas for the sake of survival. Even special buses were arranged by the Punjab Government to bring migrants from villages to Punjab during the Kharif season. Still, uncertainty persists on the future of these migrants. Many of the informal units in urban areas got permanently shut because of crisis. These units were not in a position to pay wages to the labourers nor were they able to bear the fixed cost. Future of many other informal firms remains uncertain as their survival depends on many factors of which health and finance is crucial. During the relaxation period some informal firms are operating and hiring workers at low wages for work also they have increased the working hours, reduced the number of workers. Exploitation of workers is further increasing. The employers most of the time takes advantage of the oversupply of cheap labour and do not hesitate to disregard laws and ethics in their relationship with the respective casual employees. "In India, with a share of almost 90 per cent of people working in the informal economy, about 400 million workers in the informal economy are at risk of falling deeper into poverty during crisis" (ILO).

Looking at the Worker Population Ratio (WPR) in table 2 – percentage of persons employed among the total population – then the dependence of other people on such informal workers becomes clear.

Table 2: WPR (in percentage according to usual status (ps+ss) and CWS during 2017-18

		(All_India figures)
	WPR in	
	Usual Status (ps+ss)	CWS
	Rural	
Male	51.7	49.6
Female	17.5	14.8
Total	35.0	32.6
	Urban	
Male	53.0	51.7
Female	14.2	13.3
Total	33.9	32.9
	Rural+Urban	
Male	52.1	50.2
Female	16.5	14.4
All-India Total	34.7	32.7

(*In Usual Principal and Subsidiary Status (ps+ss) if a person has engaged in any economic activity for a period of 30 days or more during the preceding 365 days the person is considered as employed. In Current Weekly Status (CWS) a person who has engaged in any economic activity for at least one day in the last seven days is considered as employed.)
Source: Periodic Labour Force Survey (PLFS) 2017-18, Ministry of Statistics and Programme Implementation, Government of India.

All-India average shows that approximately 1/3rd of population (i.e., 33%) are engaged into some kind of work periodically. It means that the rest 2/3rd are dependent on these workers. So, in other words – if one worker loses employment opportunity then there is a big survival danger for two more dependent persons. A conservative estimate shows that approximately 50 per cent of existing 26 crore informal workers are affected by this lockdown. So the number of affected workers will be around 13 crore, and affected dependent persons around 26 crore more. Therefore, even in a conservative estimate around 39 crore people in the total population are under survival threat currently. Table 3 below shows a very scanty amount of daily wages these workers get. During the survey period of 207-18, casual labours got daily wage of Rs. 262 in rural area and Rs. 316 in the urban area for non-public works.

Table 3: Average earnings (in Rs.) per day by casual labour engaged in works other than public works during the survey period 2017-18

(All India Figures)

	Rural			Urban		
	Male	Female	Total	Male	Female	Total
July-Sept 2017	253	166	232	314	192	294
Oct-Dec 2017	265	172	243	318	186	297
Jan-Mar 2018	270	175	249	328	189	307
Apr-Jun 2018	282	179	262	335	201	316

Source : Periodic Labour Force Survey (PLFS) 2017-18, Ministry of Statistics and Programme Implementation, Government of India.

The unorganised labour force is expandable in nature which is why the wages remain at minimal levels, sometimes even lower than legal minimum. In this period of crisis, the prices of the products and services produced by these workers generally do not increase in sync with the rate of inflation, further worsening their financial condition. There was a loss of 122 million jobs in April'2020 because of closure of economic activities in the lockdown period particularly in urban areas. Out of that, the small traders and daily wage labourers lost 91 million jobs (CMIE). These crisis, affected the livelihoods of millions of workers and the recovery is not very easy for this section as it would take a long time to come out of this shock. These workers have now had no shelter, earning and savings for survival. In this way, they are further excluded from the main economy due to their inability to save and invest. In 2011, the real average daily wage in India's organised sector was Rs. 513 as compared to Rs. 166 in the informal sector, which is very low. Noteworthy inequalities are found between informal and formal sector workers. Out of the total workers, the shares of self-employed, casual and regular workers respectively were 51.3%, 23.3% and 23.4%. Self-employed and casual workers fall into the category of informal workers. . The informal segment of the economy is responsible for maintaining India's unequal status quo; in fact it is liable for aggravating a penetrating split in the standards of living amongst the population. Also the unorganised firms are deprived of any access to financial services from banks, exposure to new information and technology, etc., as compare to the organised firms. In this period of crisis unorganised firms are not getting any such financial help or support to continue their working.

The present crisis is expected to wipe out 6.7 per cent of working hours globally in the second quarter of 2020, which is equivalent to 195 million full-time workers[4]. There are many sectors which are presently at high risk like manufacturing, retail, aviation, food services, hotels & restaurants, tourism, business and administrative activities. Most likely that the level of unemployment will very surely depend on the future developments and policy measures. Around 1.25 billion workers globally are employed in the sectors identified as being at high risk of "drastic and devastating" increases in layoffs and reductions in wages and working hours. Many are in low-paid, low skilled jobs, where a sudden loss of income is devastating (ILO).

According to the NSSO, the unemployment rate was at 45 year high of 6.1% in the year 2018. Amongst the young population, one in five individuals remains unemployed and additions to the workforce arising from rural demographics mostly end up in the unorganised sector. In 2018, India's Labour force comprised 512 million people and only 465 million were employed, while reports delineate impressive growth figures in the annual creation of jobs, newly created jobs are predominantly not directed towards workers of the low-skilled category. India stands to severely lose out on potential economic growth if such a situation persists for a long time. So large segments of India's workforce hit by the lockdown consist of non-migrant self-employed, small family businesses and casual labour – as many as 350 million throughout the country. It is likely that people who lost their jobs may get indulged into criminal activities and other wrong tactics in order to make money. In some regions activities of theft, intolerance and crime are increasing which is really a matter of concern. The crisis will have serious implications on the economy if immediate steps are not taken by the government.

Policy Package for Informal Sector Workers

The Finance Minister announced a package of Rs. 1.7 Lakh crore on 26th March'2020 in order to provide a safety net for the unorganised workers, especially daily wage workers, urban and rural poor. The "Pradhan Mantri Garib Kalyan Yojana" includes the following components[5]:

- 1 Kg free pulses per household for 3 months;

- Free additional 5 kg wheat or rice per person for 3 months;
- Increase in MGNREGA wages to Rs.202 from Rs. 182;
- Rs. 2000 to 87 million farmers under PM Kisan Yojana in 10 days;
- Rs. 500 per month to 200 million female Jan Dhan account holders for next 3 months;
- Free LPG for Ujjwala beneficiaries for 3 months;
- Ex-gratia of Rs. 1000 to poor senior citizens, widows and disabled;
- Rs. 20 Lakh collateral-free loans to women self-help groups;
- Govt. to contribute EPF to companies with less than 100 workers;
- Non-refundable advances of 75% or 3 months wages from PF account;
- States to use Rs. 31 crore from construction workers welfare fund;
- States to use district mineral fund for medical activities.

The spending proposed in this package would amount to around 0.85% of estimated GDP.

Policy Recommendations

As this pandemic has affected the economy badly and left all the sectors in a grieving situation it is therefore necessary for the policymakers to study each and every aspect of the situation minutely and formulate such policies which could rebind the economy. The most important at this stage is the joint effort by the state and the central governments. As the informal sector is facing hard time due to the pandemic, it is very important to protect the workers in the informal sector and provide them all necessary help. Moreover, the fiscal package already announced by the central government seems to be insufficient and some more relief measures for the informal sector must be considered till all the economic activities and employment in various sectors resume. There is urgent need of immediate short-term measures by the government. Some of the proposed measures are as follows:

- Cash transfer of more than Rs.5000 per month should be made to each household which does not have a person in formal employment.
- Ten Kg cereals and other essential items per person per month free of cost through the PDS and food for the homeless and most distressed, to meet the basic food requirement of the poor in the informal economy who have lost jobs and earnings
- The Central government has been requested to come out with a scheme to compensate the unorganised and MSME sector for payment of wages to contract and temporary employees during the lockdown.
- The government is requested to provide ex-gratia payments and to ensure that no needy person or household remains outside the social protection net being created to cope with the current calamitous conditions.
- A large number of migrants especially those in construction, manufacturing or transport/travel industries- are currently without employment and want to head back to their villages, with their accompanying family members. Proper facilities and space at the disposal of the Centre and the States should be utilized in order to avoid over-crowding of migrants who stay back and food and subsistence facilities should be made available.
- Government should make proper arrangement of transport like buses, trains or trucks for the migrants so that they can safely reach their destination.
- There is a significant increase in MGNREGA enrolments in rural areas as migrants have gone back to rural areas. It is therefore important that the number of days under the programme may be increased. All the arrears for the workers have to be released[7]. (It may be worth noting in this context that in recent years, the MGNREGA scheme does not seem to have offered much support to rural income due to delayed wage payments, lower wages and insufficient budgetary allocations. The Periodic Labour Force Survey (PLFS) report

released by the NSO in May 2019 shows that wages under MGNREGA work are lower than the market wage rate for non-public work by 74% for rural men and 21% for rural women (RBI,2020).

- The scheme of one nation one ration card which the government wants to introduce must ensure that all the migrants should have access to this card and a purely transparent mechanism should be adopted by the government.
- The migrants should be provided free washable masks, soap and water free of cost for protection against Covid-19 and some awareness camps for safety measures to curb the pandemic should also be organised for these migrants so that they can become more cautious and careful.
- A survey by All India Manufactures Organisation (AIMO) says that at least 78% of the MSMEs are not satisfied with the financial package announced by the government. They are expecting the government to provide an alternative financial mechanism than just loans and provide a wage stimulus for their workers. Many firms also suggested relief through interest free loans, deferring tax refund, and reducing GST slabs. As most MSMEs generally operate on cash, they are in need of immediate cash to tackle with the unexpected eventualities. Because the major problem befor these firms is their existence and recovery in the coming months.
- The creation of the Ministry of Skill Development and Entrepreneurship in 2014 was a step towards the creation of a framework for skilling/re-skilling the population. The Skill India programme of the government is a biggest challenge at this moment of current and rising unemployment level in India. Government need to spend more on education, proper training and systematic evaluation of the scheme. Such initiatives need to become more commonplace across the nation, with an emphasis on skilling young people about to enter the labour force. A perfect ground should be prepared for training. A transparent system should be maintained for the utilization of funds by the training institutions and government should therefore devise certain strategies to provide regular employment to the trained people under the programme.
- The State governments should also come up with innovative programmes to help the informal workers and the unemployed workers. The government of Kerala for example has announced a very impressive package of Rs. 20,000 crore for the state. Few of the important components of the package are: 1) Free food for all the needy families under PDS; 2) A very subsidized meal programme at Rs.20 to be delivered at home; 3) Employment guarantee programme of Rs.3000 crore in the first two months; 4) Two months of welfare pensions to be given in advance etc. The other states must follow and implement these steps in their respective states and help the poor and informal workers at the maximum.

Covid-19 problem is huge for India's workforce. The Indian economy at present, is passing through a difficult phase of securing the future of unemployed labour-force and a financial setback due to Covid-19 crisis. Inaction on these two fronts can have serious implications; without improving the skills of working population and imparting required expertise to young individuals, economic inequality will rise steeply and the working population with the marginal financial stature may submerge into destitute. It is therefore the responsibility of the central as well as the state governments to take initiative and construct requisite roles for them within the main economy. Most likely, the damage to the entire economy is going to be significantly worse than the current calculations made, so the government must find measures in order to support the earnings of the poor because the Indian economy is basically dependent on the informal sector. But, different phases of lockdown, unlock phases, social distancing norms have disrupted the livelihood of the informal sector badly. Therefore it is imperative at this stage that the policy makers need to be prepared to augment the response as the situation evolve so as to minimise the impact of the crisis on the formal as well as on the informal sectors and open the way for a comfortable recovery so that the economy comes back to a normal state without any serious and unrecoverable damage.

References

- Chaddha, N, A Das, S Gangopadhyay and N Mehta (2017), 'Reassessing the Impact of Demonetisation on Agriculture and Informal Sector', India Development Foundation (IDF), New Delhi, January.
- Economic Survey, 2019-20; https://www.indiabudget.gov.in/economicsurvey
- https://www.the week.in/news/biz.tech/2020/04/08/covid-19-crisis-can-push-40-cr-informal -sector-workers-in-India-deeper-into-poverty-ilo.html
- https://www.ideasforindia.in/topics/macroeconomics/reviving-the-informal-sector-from-the-throes-of-demonetisation.html
- https://www.covid19india.org/ and the Ministry of Health and Family Welfare
- https://time.com/5818819/imf-coronavirus-economic-collapse
- https://www.orfonline.org/expert-speak/future-of-unemployemnt-and-the-informal-sector-of-India-63190
- https://www.orfonline.org/expert-speak/India-informal-worker-need-at-least-a-rs-1.5-trillion -relief-package-to-servive-covid19-lockdown-65080
  India Wage Report, "Wage Policies for decent Work and Inclusive growth", Indian Labour Organisation.
- Idronline.org/how-we-fail-those-who-are-building-new-India
- Khera, Reetika (2020) "Covid-19: What can be done immediately to help vulnerable population", Ideas for India.
  https://www.ideasforindia.in/topics/poverty-inequality/covid-19-what-can-be-done-immediately-tohelp-vulnerable-population.html
- Krishnan, Deepa and Stephan Siegel (2017), "Survey of the Effects of Demonetisation on 28 Slum Neighbourhoods in Mumbai", *Economic and Political Weekly*, Vol. 52, Issue No. 3.
- Mehrotra, Santosh, and Jajati K. Parida (2019):India's Employment Crisis: Rising Education Levels andFalling Non-agricultural Job Growth. https://cse.azimpremjiuniversity.edu.in/wpcontent/uploads/2019/10/Mehrotra_Parida_India_Employment_Crisis.pdf
- Mehrotra Santosh, 2019, "Informal Employment Trends in the Indian Economy: Persistent informality, but growing positive development" Working Paper No. 204, International Labour Organisation.
- Newsclick.in/covid-19-crisis-Exposes-India-Neglect-Informal-Workers
  Rangarajan, C. and S. Mahendra Dev (2020), "A Safety net: Post-Covid", Indian Express, July 3, 2020.

- Ray, Debraj and S. Subramanian (2020), “India's lockdown: An interim report”, Working Paper Series, National Bureau of Economic Research (NBER), No. 27282, May 2020.
- Sengupta, Rajeswari and Harsh Vardhan (2020a), "The pandemic and the package", Ideas for India, 4 June. https://www.ideasforindia.in/topics/macroeconomics/the-pandemic-and-the-package.html
- S.Mahendra Dev, Rajeshwari Sengupta “Impact of COVID-19 on the Indian Economy : An Interim Assessment, Indira Gandhi Institute of Development Research (IGIDR) WP-2020-013

RELATIONSHIP BETWEEN CORPORATE GOVERNANCE AND FIRM PERFORMANCE: A STUDY OF INDIAN FINANCIAL SERVICE SECTOR

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Abstract

The Indian corporate governance regulations have been developing in India over the recent past but a limited number of comprehensive index based studies could have been found which focus on the impact of corporate governance practices on financial performance of Indian Financial Service Sector other than banks and insurance companies. The study attempts to examine the relationship between Corporate Governance Disclosure Index (CGDI) and firm performance for the Indian Financial Service Sector. The study first constructs a CGDI using all the important parameters of governance namely Responsibilities of the Board, Rights and Equitable Treatment of Shareholders, Role of Stakeholders and Disclosures and Transparency; and then finds its association with the financial performance, measured using Return on Asset, return on Equity and Tobin's Q. The panel data set comprises of financial service companies forming part of BSE-500 index and the estimation analysis has been carried out using panel data fixed and random effects method. The study reveals a significant positive relationship between CGDI and firm performance using ROA and ROE as the dependent variables whereas there have been found an insignificant negative association between CGDI and Tobin' Q. CGDI is a vital and causal factor in explaining firm performance and with the enhanced corporate governance disclosures, the investors would also have positive perception about organisations which would possibly reduce the finance costs.

Keywords: Corporate Governance Disclosure Index, Financial Performance, Indian Financial Service Sector

Introduction

Corporate governance measures in India are enforced through various forums. The Ministry of Corporate Affairs and Securities and Exchange Board of India (SEBI) are two bodies that oversee the governance of listed companies. The essence of corporate governance is fairness, transparency and adequate information to all stakeholders. The new Companies Act (2013) is landmark legislation that raises the level of governance by incorporating more stringent, mandatory disclosure standards for consolidated financial statements requirement, related party transactions, related regulations and alike. The need for better governance and the alignment of governance rules with the spirit of the Companies Act (2013), SEBI amended clauses 35B and 41 of the listing agreement.

In developing economies such as India, although an elaborative corporate governance framework already in place, still its compliance by companies at most is questionable. Indian companies are mostly dominated by the family and, at times, the promoter's shareholding is raised to even more than 50 per cent of the total holding. This gives promoters greater control over business operations which can reduce the financial returns of other stakeholders if the promoters begin to perceive their financial interests by deviating company resources. This can be fickle from small to more serious misappropriation as perpetrated management fraud. Additionally, a significant percentage of insider ownership leads to more type II agency cost, according to Fama and Jensen (1983). Conversely, the researchers argue that internal stakeholders may have been more interested in the long-term growth and performance of the enterprise and thus helps in an effective monitoring function. Therefore, the ownership structure (capital of the promoter, capital of the non-promoters and institutional investors) is effective governance tool.

There are studies such as Shleifer and Vishny (1986) which strongly emphasize the importance of the institutional investors who play an active role in the corporate governance process. Also, the Cadbury Committee (1992) supports this view by saying that because of their collective interest, we look to institutions in particular, with the patronage of the Institutional Shareholder's Committee to make use of its influence on the owners to ensure that the companies they invested in abides by the code and law. The working group on Corporate Governance of Harvard Business similarly determined that the institutional investors in public companies should consider themselves owners and not investors. Therefore, institutional ownership is also one of the important factors of the ownership structure.

The main purpose of the corporate governance mechanism is to bring transparency in doing business by agents and align their interests to increase value for all stakeholders. Many researchers have pointed out the natural tendency of managers to use company resources in their own interests leading to conflict of interest between owners and agents. Consequently, the role of the independent director on advice becomes vital in decision making and management monitoring. After the failure of independent directors in the board of Satyam, India is making all the right moves in companies Act around independent directors, it is necessary to establish much more responsibilities and adopt regulations stringently. The recent governance regulations under the Companies Act (2013) has been aligned with clause 49 of the Listing agreement to emphasize the procedure regarding the appointment of independent directors, maintenance of the database of independent directors, their responsibilities and remuneration. The independence of the board is one of the important attributes of corporate governance and is considered while building corporate governance disclosure index (CGDI).

The board meeting is also an important board attribute of relevant value. While some studies have claimed that board meetings are useful for better decision-making, others have argued that these meetings are not necessarily useful due to lack of time or costs involved. There is an ongoing debate on the relationship between the frequency of board meetings and company performance. So, the study has also considered the board meetings during the construction of CGDI. Sahu and Manna (2012) studied the relationship between the characteristics of the board of directors and corporate performance. The results revealed that the size of the board of directors and meetings had a positive impact on performance considering the independence of the board of directors and the presence of non-executive chairman on the board has a negative impact on the financial performance.

While building CGDI, the study has taken into account many corporate governance parameters as ownership structure, board independence, board meetings, corporate control market and market competition, following the methodology of Varshney, Kaul and Vasal (2012) to build the CGDI. The study uses secondary data from the Indian Financial Service companies listed on BSE and forming part of in the BSE-500 index for the period 2006-2018, and builds a CGDI and studies its impact on business performance.

In a developing country like India, the financial service sector plays a prominent role in country's GDP, employment generation, development of economy and so on. The Financial Service Sector also constitutes the highest proportion of the market capitalization of two leading stock indices, namely, SENSEX & NIFTY. These indices indicate the level of growth in Indian economy and the financial service sector contributes highest to their movements. As the Financial Sector plays a crucial role in the Indian Economy, any fraud, mismanagement or negligence in this sector may lead to poor financial health of the economy as a major portion of the country's investors wealth is invested in financial services sector through different routes. Additionally, since public money is also involved to a large extent in financial service sector and therefore, the aspect of corporate governance become inseparable and more important in financial sector. The review of literature reveals that a large number of studies have been undertaken in the past to capture the significance of corporate governance in various sectors of the Indian economy, but only few studies have been found addressing the corporate governance practices of firms operating in Indian Financial Service Sector. Taking it further, the studies already done focused mainly on Banking Segment of the Indian Financial Service Sector, but in the recent times the prominence of the segments other than the banking segment is increasing at a considerable pace. While undertaking the review of literature, no comprehensive study could be found focusing on companies operating in the segments other than banking segment of Indian Financial Sector, like NBFC's, Housing Finance Companies, Asset Management Companies, Stock Broking Companies, Term Lending Companies and alike. So, keeping in view the growing significance of these other segments of financial sector in the Indian economy, there is a strong need to undertake a study evaluating the corporate governance practices of firms operating in the segments other than banking segment and to analyse their impact on the firm's financial performance.

The main contribution of the present study to the literature is an econometric analysis of the association between CGDI and the financial performance of the companies forming part of Indian Financial Service Sector. The study has used an index based approach to establish the relationship rather than relying on the few parameters to establish a relationship between corporate governance and financial performance of selected companies belonging to the Indian Financial Service Sector. Also, most of the previous studies have used Tobin's Q as a proxy for business performance by examining the relationship between board characteristics and company performance. The present study uses several alternative measures of business performance such as return on assets (ROA), Return on Equity (ROE) along with the Tobin's Q and examines the impact of CGDI on all of these performance measures. The present study also analyses the endogenous nature of the relationship between corporate governance and financial performance. Additionally, the study contributes to the limited literature on the relationship between CGDI and business performance in the Indian context.

The remaining sections of the paper are organized as follows. In the second section, the paper describes the literature review of various national and international studies and highlight inconsistencies in their results. The third section demonstrates the objectives of the study. The fourth section talks about the data, sample, data sources, variables used and methodology for the construction of CGDI and estimation models used for the analysis. The last section of the paper discusses the empirical results and conclusions.

Literature Review

The aftermath of the 2007 financial crisis raised questions about the global governance standards followed by a worldwide debate as to whether the best-governed companies outperform other companies. While many studies have been conducted to test the impact of the different features of the corporate governance on the company performance, only a few studies have developed CGDI. The few studies that have built CGDI and tested its relationship with corporate performance were mainly conducted in developed economies. The CGDI was developed either with the help of a questionnaire or by taking into account various corporate governance parameters. For an emerging economy like India, there is no ready-made CGDI and the study has made an attempt to create CGDI for companies operating in the financial service sector and examine its impact on financial performance.

The perception of the market towards companies following better governance standards was tested by Gompers, Ishii and Metrick (2003). To measure corporate governance, they developed an index using 24 parameters and tested its impact on equity returns during the period 1990-1999. Similarly, Gov-Score index was also developed by Brown and Caylor (2006) based on 51 internal and external firm level measures. Gompers et al. (2003) reported companies with stronger shareholder rights to have greater firm value, sales growth and higher profits than the portfolio of firms with low shareholders rights. These results were in line with Brown and Caylor (2006) and

Bijalwan and Madan (2013) who found a positive relationship between the company's performance and the Gov-Score. Additionally, the study concluded the presence of a positive relationship of corporate performance with corporate governance policies, transparency and shareholder.

Some studies have also reported conflicting results such as Core, Guay and Rusticus (2006); they do not support the hypothesis that weak governance results in poor equity returns, however, they agree that poor governance leads to poor operational performance. Furthermore, following the approach suggested by Gompers et al. (2003), Bauer, Guenster and Otten (2004) analyzed the companies listed on FTSE Eurotop 300 and reported a significant positive relationship between corporate valuation and corporate governance rating by designing a portfolio of well-governed and poorly-governed companies. However, a negative relationship has been reported between the corporate governance rating and the accounting performance ratios of the Net Profit Margin and the Return on Equity (ROE). Yet another study by Lehmann and Weigand (2000) reported concentration of the ownership has a negative impact on profitability with reference to German companies. Furthermore, they found a significant positive relationship between ownership structure and large financial institutions as key stakeholders and corporate performance. Contrary to this, Kumar and Singh (2013) showed a significant positive association of promoter ownership with corporate performance and they also suggested that the promoter's interest become aligned with the interest of company only above a critical ownership level of 40%, with a positive effect on the value of the company.

A number of studies have adopted survey methods to build corporate governance indices such as Black, Jang and Kim (2006), Ertugrul and Hegde (2009), etc. For companies listed on the Korean stock exchange, Black et al. (2006) conducted survey and build a CGI based on their responses. The study used several regression models such as Simple ordinary least squares (OLS), 2-SLS and 3-SLS methods and also found correlation between CGI and market value of the company. The results reported a strong correlation between the performance variables and CGI. Similarly, Braga-Alves and Shastri (2011) also built a composite CGI taking into account six proxies for the main corporate governance practices prescribed by the Bovespa's reform. Bovespa is the stock exchange of Brazil, provided for Novo Mercado listing rules highlighting numerous corporate governance rules to be followed by listed companies. They found a positive relationship, implying that a higher index score linked to a higher market value. However, no significant relationship was found between CGI and operational performance.

Additionally, Ertugrul and Hegde (2009) looked at governance rating scores (from the U.S. agencies) and its impact on the company's future performance. Mostly, people's positive perception towards the third party governance rating as questioned as it as empirically proven that these ratings did not provide support in identifying the governance difficulties faced by companies. Subsequently, it was proved that rating measures provide inadequate forecasts on operating performance and equity returns. The study as unable to predict the likelihood of exposure to class action lawsuits, company delisting, SEC's action and bankruptcy. Bijalwan and Madan (2013) also examined the impact of corporate governance on the financial performance of 121 companies. The score was obtained using a well-designed questionnaire based on Standards & Poor's Governance, Management, Accountability Metrics and Analysis Method (GAMMA). Furthermore, Beiner, Drobetz, Schmid and Zimmermann (2006) also built CGI based on a questionnaire distributed to companies listed on the Swiss Stock Exchange and found positive relationship between corporate governance and business valuation.

Many researchers argue a positive relationship between company performance and corporate governance measures. The CGI was also built by Javed and Iqbal (2006) based on the 3-year average company data, taking into account the main parameters such as the board of directors, ownership and shareholding and transparency, disclosure and review. Furthermore, these parameters were divided into several subheadings and the weighted CGI was built on the basis of subjective judgment and scores assigned to companies on a scale of 0–100 based on the degree of compliance. In a more comprehensive study, Larcker, Richardson and Tuna (2007) worked upon the relationship between corporate governance and managerial behavior and firm's performance. It was found that governance ratios correlate to the future operational performance and equity returns. Additionally, a small sample study was conducted by Khatab, Masood, Zaman, Saleem and Saeed (2011) with reference to companies listed on Karachi Stock Exchange. The study found that companies that follow good corporate governance measures have better profitability indicators (ROA and ROE) compared to other companies.

Further, Epps and Cereola (2008) examined Institutional Shareholder Services Corporate Governance Quotient Rating (ISS-CGQ) and its relationship to ROA and ROE, the measures of financial performance. The study did not report any statistical evidence of the company's operating performance related to the companies' ISS corporate governance rating. Johnson, Moorman and Sorescu (2009) reviewed the results of abnormal returns earned by shareholder rights portfolio as suggested by Gompers et al. (2003). The study challenged the sector's clustering effects that can drive returns and did not find any abnormal returns based on portfolio broken down on the basis of governance parameters. Furthermore, MacAulay, Dutta, Oxner, and Hynes (2009) investigated the relationship between governance practices followed by Canadian companies and their financial performance by generating corporate governance index and found that the relationship between CGI and corporate performance improved for the first two years when the new governance standards were applied standards in Canada. They concluded that compliance with corporate governance codes has improved in the period 2003-2007, and larger companies comply better with guidelines than smaller ones. However, it was reported that the same weakens over the next three years from 2005 to 2007.

Taking it further, in a study by Bagchi (2011), the impact of CGI was examined on the company capital market performance and no abnormal returns were found when different portfolios were built using high and low governance companies. The study attributed this to the efficient behavior of the market that discounts information on corporate governance in the price of the company. Changes in the quality of corporate governance practices were analyzed by Cheung, Connelly, Jiang and Limpaphayom (2011) along with its impact on subsequent market valuation. The study concluded that improving the quality of governance practices was positively related to the subsequent firm's valuation and vice versa. In the Indian context, the literature on corporate governance can be divided into two broad structures. One that deals with governance framework, political implications and comparing Indian practices with developed economies, for example, Baxi (2005), Sinha (2006), Chakrabarti (2008), Retolaza, Roqueñi and San-Jose (2014), etc. while the other set deals with the empirical validation of the impact of governance on firm value, earnings management and firm's performance (Balasubramanian, Black and Khanna, 2010; Ganguli and Agrawal, 2009; Garg, 2007; Pattnayak, 2012, etc.). A very few studies have meant to test the global impact of CGI on business performance. In the direction of this effort, Balasubramanian et al. (2010) built CGI based on the survey conducted on Indian listed companies and tested positive relationship between CGI and the company's market value. Presenting similar views, J. Sarkar, S. Sarkar and Sen (2012) took data from large Indian listed companies and built CGI covering the period from 2003 to 2008, found a strong relationship between CGI and market performance of firms. Furthermore, Varshney et al. (2012) also looked at the relationship between corporate governance and business performance by building weighted corporate governance index using some internal data and external corporate governance parameters. The analysis was conducted using pooled OLS and random effects model to study the relationship between CGI and business performance. The results of the study showed a significant positive relationship between CGI and economic added value but no significant relationship was found with traditional performance measures.

In a similar attempt, Ben (2014) built CGI for BSE-100 companies and studied its impact on two measurements of business performance, namely, price / book value and return on capital employed. A significant positive impact of the CGI was reported on the market trend measured on the basis of the book value. However, no relationship between CGI and accounting performance could have been established. It can be observed that most of the Indian studies concluded a positive relationship between CGI and business performance.

The present study submits that the inconsistency in the earlier research leaves a room for more investigation into this area, particularly in the case of a developing economy like India where the governance rules are still evolving. The differences could arise due to the different methodologies adopted for the construction of corporate governance index or different parameters used for corporate governance and firm performance. Hence, the present study aims to develop a CGDI for the companies operating in the Indian Financial Service Sector and then examines its impact on corporate performance using the appropriate econometric tools and techniques.

Objective

The main objective of the present study is to develop Corporate Governance Disclosure Index (CGDI) for the companies operating in the Indian Financial Service Sector. In order to construct the CGDI, the study has taken into consideration a number of suitable internal and external parameters which are explained in the coming sections of the paper. The study further wish to investigate the impact of corporate governance disclosure practices on the financial performance of the selected companies so as to find and support the evidence as proposed by the good governance theory. Most of the studies done earlier have tested the impact of individual parameters like board characteristics, audit quality and ownership structure on firm's performance where the present study aims to develop CGDI by incorporating almost all the parameters together and then examine its impact on the firm's financial performance.

Data and Research Methodology

This section provides discussion on the sources of data, selection of companies, hypothesis construction and the model used for the testing of the relationship between corporate governance disclosure and financial performance of the selected companies. Additionally, this section provides insights about how Corporate Governance Disclosure Index (CGDI) has been constructed along with the parameters used for measuring the financial performance and control variables.

Data and Variables

The data in the present study has been primarily taken from the PROWESS database maintained by the Centre for Monitoring the Indian Economy (CMIE). Besides, some other sources like the annual reports, corporate governance reports, stock exchange filings, web disclosure and like sources have been used to meet the data requirements in order to cater the needs of the study. The study is been conducted on a Financial Service Companies (other than Banks and Insurance Companies) listed on Bombay Stock Exchange and forming part of BSE 500 index. The number financial service companies based on the above criteria comes out to be 45, but 9 companies were dropped due to the non-availability of required data, leaving the study with 36 companies for analysis purpose. The study has collected the panel data from the above mentioned sources for the period 2005-06 to 2018-19 and analysed it using multivariate regression analysis.

Corporate Governance Disclosure Index (CGDI)

The unweighted Corporate Governance Disclosure Index (CGDI) has been constructed to study the corporate governance practices of selected companies by assigning binary numbers of '0' and '1' ('1' if the company fulfill certain governance parameter, otherwise '0') keeping in view the various regulations issued by the governing bodies regarding corporate governance from time to time. The CGDI in the present study has been constructed in line with the collaborative "CG Scorecard" initiative taken by Bombay Stock Exchange (BSE) and International Finance Corporation (IFC) for the Indian Corporate. The index comprises of 100 questions divided into four broad principles of corporate governance namely, Responsibilities of the Board (ROB), Rights and Equitable Treatment of Shareholders (RSH), Role of Stakeholders (RST) and Disclosures and Transparency (DAT) comprising 30, 30, 10, 30 questions respectively. The number of questions are been asked depending upon the weightage of principles assigned by the BSE and IFC collaborative initiative signed on February 4, 2016.The detailed CGDI is given hereunder.

Table 1: Detailed Corporate Governance Disclosure Index

	CORPORATE GOVERNANCE DISCLOSURE INDEX (CGDI)			
1	**Board of Directors (BOD)**			**30**
	Not less than 50% of the board of directors comprises non-executive directors		1	
	At least one woman director on board		1	
	Where chairman is non-executive director, at least 1/3rd of the board comprises of independent directors		1	
	Where chairman is executive, at least 1/2nd of the board comprise independent director		1	
	At least four board of directors meetings in a year		1	
	Directors have more than 75% attendance in the last three years		1	
	Disclosure of tenure & age limit of directors		1	
	Establishment a vigil mechanism for directors and employees		1	
	Directorship and Committees' Membership/Chairmanship of directors across all companies		1	
	Information about literacy & financial expertise of the board members		1	
	Chairman and CEO Duality		5	
	Promoter Executive Chairman- cum-MD/CEO	1		
	Non-Promoter Executive Chairman-cum-MD/CEO	2		
	Promoter Non-Executive Chairman	3		
	Non-Promoter Non-Executive Chairman	4		
	Non-Executive Independent Chairman	5		
	The CEO compensation commensurate with the company's size and performance		1	
	The disclosure of remuneration structure for executive directors align with performance		1	
	The growth in executive director(s) pay been aligned to company performance in the last three years		1	
	Information on code of conduct for board members and senior management		1	
	The evaluation policy and process for directors is in place and effective		1	
	Disclosures regarding to Independent Director (ID)		3	
	Selection criteria the terms and condition of appointment of Independent Director (ID)	1		
	Separate meeting of the ID.	1		
	Limit of No. of Directorship for ID (If whole time director than three or If not whole time director than seven)	1		
	Minimum three director and 2/3rd of the member of Audit Committee are Independent Directors		1	
	Compliance of minimum requirement of the number of audit committee meetings. (At least four times).		1	
	The internal audit function reports to the audit committee directly and there are detailed disclosures on internal audit charter		1	
	Compliance of minimum requirement of number of non-executive directors in the Nomination and Remuneration Committee. (At least 3 members)		1	
	Transparency in composition of the Stakeholders Relationship Committee		1	
	Transparency in composition of the Corporate Social Responsibility Committee		1	
	A detailed framework for succession planning is disclosed		1	

	Rights of Shareholders (RSH)		**30**
	Purpose of the Annual General Meeting (AGM)	1	
	Threshold limit less than 10% for minority shareholders to propose an agenda in the shareholders meeting	1	
	Details of Special Resolution passed in the last 3 AGM	1	
	Details of resolution passed last year through Postal Ballot including the name of conducting official and voting procedure	1	
	Information relating to the rules, including e-voting procedures, that govern Annual General Meeting	1	
	Details of the attendance of directors at the AGM	1	
	Details of the attendance of auditors at the AGM	1	
	The last AGM was held within four months of the fiscal year end	1	
	Details of the outstanding GDRs/ADRs/Warrants or any Convertible instruments, conversion date and likely impact on equity	1	
	Absence of clauses which allow the controlling shareholder to exercise disproportionate voting power in any form	1	
	Related Party Transaction (RPT) Policy stating that RPT's to be dealt by independent non-conflicted board members	1	
	The company have in place a system, including policies and procedures, to facilitate disclosures of conflicts of interest by stakeholders	1	
	Company has disclosed its Related Party Transactions	1	
	No loans/investments in promoter entities or subsidiaries have been written off or classified as doubtful in the last three years	1	
	Company have a policy to publicly disclose the reasons for pledging of shares by the controlling shareholders	1	
	There is no evidence of any structure/mechanism that could violate minority shareholders' rights	1	
	Details regarding Date, time and venue of Annual General Meeting	1	
	Listing details of company's shares on the stock exchange with codes	1	
	Details regarding the share transfer system	1	
	Code for prevention of insider trading practices	1	
	Details regarding distribution of shareholdings	1	
	Details of Market Price Data for the last one year	1	
	Performance in comparison to broad-based indices	1	
	Date of book closure	1	
	Date of dividend payment	1	
	Dematerialization of shares and liquidity	1	
	Details regarding shareholders discussion and participation at AGM	1	
	Plant Locations	1	
	Address for correspondence	1	
	The company have policies and processes in place to handle investor grievances	1	
3	**Role of Stakeholders (RST)**		**10**
	The Stakeholders Committee meets at least 4 times a year, has at least 2/3 independent directors	1	
	Information about nature of complaint & queries received and disposed-item wise by the Stakeholders Committee	1	
	The company has publicly disclosed its health, safety and sexual harassment policies	1	
	The company have in place policies and practices which explain its supplier/contractor selection and management processes	1	
	The company demonstrate a commitment to strong ethical practices and has clearly stated anti-corruption policy	1	
	The CSR spending of the company is above 2% of average net profit over the last three years.	1	
	The company has disclosed the areas of CSR spending.	1	
	The company has disclosed the Human Resource Development initiative (HRD)	1	
	The company have an effective whistle-blower mechanism for stakeholders	1	
	The company has disclosed its Industrial Relation Policy	1	
4	**Disclosure & Transparency (DAT)**		**30**

	The company has a Policy on determination of materiality	1	
	Auditor has issued an unqualified opinion without any matter of emphasis	1	
	The company has disclosed the fact of communication of quarterly financial performance to the shareholders	1	
	The company has disclosed comprehensive information on all business segments	1	
	The company has disclosed meaningful information on all non-financial parameters	1	
	The company has outlined & disclosed both risks and mitigation measures	1	
	The company developed and disclosed a comprehensive related party transaction (RPT) policy	1	
	The detailed minutes or transcripts of the previous AGM publicly available	1	
	The quarterly shareholding pattern filings have been made and the latest annual report lists out the top 10 shareholders	1	
	Shareholding for board members as well as KMPs has been disclosed	1	
	The company articulated a dividend policy for its shareholders	1	
	The information on the company website comprehensive and accessible	1	
	The company has disclosed the details on the competence and experience of the auditor(s)	1	
	Has the company periodically rotated its auditors [firm(<10) and partner(<5)]	1	
	Disclosure of Statement of Company's Philosophy on Code of Governance has been made	1	
	The company identified its senior executives and their responsibilities have been clearly stated	1	
	The company disclosed the experience of each board member and senior executives	1	
	The company clearly identifies its independent directors in the annual report	1	
	Selection criteria the terms and condition of appointment of Director	1	
	The company disclose details on its training, development and orientation programs for directors	1	
	Disclosure of transactions treated different from that prescribed in an Accounting Standard	1	
	Disclosure of Non-compliance related to capital market matters during the last 3 years.	1	
	Disclosure of Directors' responsibility statement	1	
	Disclosure of Corporate governance rating	1	
	Disclosure of Compliance with secretarial standards issued by ICSI	1	
	Disclosure of Policy for determining 'material' subsidiaries	1	
	Disclosure of the investments made by the unlisted subsidiary company	1	
	CEO/CFO certification	1	
	Compliance of Corporate Governance and Auditors' Certificate	1	
	Means of Communication and General Shareholder Information	1	
Total Corporate Governance Index Score			**100**

Total Corporate Governance Index Score100*Firm Performance Variables*

In the existing literature (Hermalin & Weisbach 1991; Bhagat & Black 2002; Abdullah 2004) both accounting return and market return based measures have been used to assess the firm performance. The accounting based measures used in the study are Return on Equity (ROE) and Return on Assets (ROA) while Tobin's Q is used as a market based measure, as proxies for firm performance. In this study the firm performance is measured both in terms of profitability and value of firm. To measure the impact of corporate governance practices on firm performance we use widely used measures - Returns on Asset (ROA), Return on Equity (ROE) and Tobin's Q measured as follows:

S. No.	Variable Name	Estimation Method
1	*Return on Asset (ROA)*	Earnings before Interest & Tax / Average Total Assets
2	*Return on Equity (ROE)*	Earnings available for Equity Share Holders /Equity Shareholder's Funds
3	*Tobin's Q*	(Market capitalization + Book Value of Debt and Preferred Stock) / Book value of assets

Control Variables

Apart from corporate governance characteristics, firm performance is affected by other pragmatic company characteristics. It is customary in empirical literature to control for these factors. Control variables can reduce omitted variable bias. Hence following prior literature this study uses exhaustive set of control variables which are as under:

S. No.	Variable Name	Calculation Method
1	Financial Leverage (F_LEV)	Total Debt/Total Equity
2	Firm Size (F_SIZE)	Natural Logarithm of Total Assets
3	Firm Liquidity (F_LIQ)	Cash & Cash Equivalent / Total Assets
4	Firm Age (F_AGE)	Natural Logarithm of years since Incorporation

Model Specification

The variables used under the present study for the purpose of estimation are endogenous in nature, so there is tendency for the OLS estimator to yield biased and inconsistent results. As the result the study looks for some other econometric tools and comes across two widely used measures of panel data in financial researches namely fixed effects and random effects models. The fixed and random effects estimation has been used considering an assumption that the unobserved heterogeneity should not be correlated with the independent variables. Moreover, the study has tested for the assumptions and appropriateness of the fixed effects and random effects estimation by using Hausman test. Besides this, the study has utilized a panel least squares method with random effects to assess the relationship between CGDI and firm performance of selected companies. The estimation techniques used in this study have been used in previous studies like Black et al. (2006) for examining the relationship between corporate governance and firm performance. The following econometric models have been formed for estimation:

MODEL 1

$$ROA_{it} = \alpha_{i+}\beta_1 CGDI_{it} + \beta_2 F\_LEV_{it} + \beta_3 F\_SIZE_{it} + \beta_4 F\_LIQ_{it} + \beta_5 F\_AGE_{it} + \varepsilon_{it}$$

MODEL 2

$$ROE_{it} = \alpha_{i+}\beta_1 CGDI_{it} + \beta_2 F\_LEV_{it} + \beta_3 F\_SIZE_{it} + \beta_4 F\_LIQ_{it} + \beta_5 F\_AGE_{it} + \varepsilon_{it}$$

MODEL 3

$$Tobin's\ Q_{it} = \alpha_{i+}\beta_1 CGDI_{it} + \beta_2 F\_LEV_{it} + \beta_3 F\_SIZE_{it} + \beta_4 F\_LIQ_{it} + \beta_5 F\_AGE_{it} + \varepsilon_{it}$$

Where:

ROA_{it}:	Return on Asset	F_SIZE_{it}:	Firm Size
ROE_{it}:	Return on Equity	F_LIQ_{it}:	Firm Liquidity
Tobin's Q_{it}:	Tobin's Q	F_AGE_{it}:	Firm Age
F_LEV_{it}:	Firm Leverage	α:	Intercept
ε_{it}:	Error Term	β:	Slope of coefficient X
$CGDI_{it}$:	Corporate Governance Disclosure Index		

Empirical Results

To start with, preliminary analysis of variables has been done using descriptive statistics. The descriptive statistics for the variables have been reported in Table 2. It can be seen that the CGDI score for Indian Financial Service Companies ranges from 38 to 83 with a mean of 63.33. The ROE for the sample ranges from -35.340 to 82.26 percent while ROA ranges from -21.450 to 72.970 with the average value of 14.40 and 4.971 percent respectively.

Table 2: Descriptive Statistics for the Variables Used in the

Variable	Observations	Mean	Std. Dev.	Min	Max
CGDI	504	63.333	7.817	38.000	83.000
ROE	504	14.400	11.116	-35.340	82.26
ROA	504	4.971	7.614	-21.450	72.970
Tobin's Q	504	3.346	4.337	0.180	47.580
Leverage	504	3.470	3.415	0.000	12.930
Liquidity	504	0.061	0.090	0.001	0.949
Firm Age	504	3.079	0.619	0.000	4.407
Firm Size	504	8.554	2.248	-1.309	13.036

Source: Author's Calculations

The table also shows that the mean value of Tobin's Q for the data is 3.346 with the range of 0.180 to 47.580. The leverage for the sample ranges from 0 to 12.930 with mean value of 3.470. The Liquidity for firms has a mean of 0.061 indicating that for majority of the firms in the sample are keeping average cash and cash equivalents of 6 percent approximately as a percentage of total assets. Further, the firm's age and size (calculated as the log of years from incorporation and total assets, respectively) shows an average of 3.079 and 8.554, respectively.

The Table 3 shows the mean values of the sub-indices used for the construction of Corporate Governance Disclosure Index (CGDI). It can be seen from the table values that the average score for Board of Directors (BOD), Rights of Shareholders (RSH) and Disclosure & Transparency (DAT) is 18.84, 19.13 and 19.72, respectively, out of 30. Further, the average score of Role of Stakeholders (RST) is recorded as 5.65 out of 10. It is evident from the Table 3 that most of the disclosure has been made for Disclosure & Transparency (DAT) sub-index followed by Rights of Shareholders (RSH), Board of Directors (BOD) and Role of Stakeholders (RST) which indicates that, for the sampled companies, Role of Stakeholders (RST) has been given the least importance in corporate governance disclosure related matters.

Table 3: Mean Values for Corporate Governance Sub-IndicesSub-IndicesMean

Sub-Indices	Mean Value	Percentage to Total
Board of Directors (BOD)	18.84	62.80%
Rights of Shareholders (RSH)	19.13	63.76%
Role of Stakeholders (RST)	5.65	56.50%
Disclosure & Transparency (DAT)	19.72	65.73%

Source: Author's Calculations

Before continuing further for the main regression analysis, the study has checked for the multicollinearity and stationarity among the variables by using correlation analysis and unit root tests. The correlation analysis has been presented in Table 4 and the unit root tests, Levin-Lin-Chu (LLC), Im-Pesaran-Shin (IPS) and Fisher-ADF test results have been shown in Table 5. The regression analysis, showing the coefficients for the impact of Corporate Governance Disclosure Index CGDI on the financial performance of selected financial service companies has been presented in Table 6. The correlation matrix reveals the relationship among independent variables used in the study. It can be observed that there is no sign of multicollinearity between the independent variables as there is very low correlation among the independent variables. The CGDI is found to be positively correlated with Firm's age and size indicating that as firms mature, the reporting standards and corporate governance practices improves, which is also true with the Size of the firm. The correlation of CGDI with that of the Firm's Leverage has also been found positive but it is negative for Firm's Liquidity.

Further, the study has used widely accepted test for the choice between the fixed effects and random effects model, known as the Hausman Test (1978). The null hypothesis for the Hausman Test is that there is no significant difference between the coefficients of fixed effects and random effects model. The hypothesis testing for the present study reveals that, for the Model I and Model II the Random Effects Model is most appropriate model while, for the Model III, Fixed Effects Model is the most appropriate model.

Table 4: Correlation Matrix among the Variables Used in the

Variables	*CGDI*	*Leverage*	*Liquidity*	*Age*	*Size*
CGDI	1				
Leverage	0.056	1			
Liquidity	-0.110	-0.128	1		
Age	0.327	0.145	-0.204	1	
Size	0.430	0.472	-0.225	0.319	1

Source: Author's Calculations

Table 5: Panel Unit Root Tests for Firm Performance Measures and CGDI

Variable/Method	*LLC*	*IPS (W-stat)*	*Fisher-ADF Z-stat*
ROE	-5.5850 (0.0000)	-3.6107 (0.0002)	-4.1755 (0.0000)
ROA	-5.9863 (0.0000)	-4.1028 (0.0000)	-4.7584 (0.0000)
Tobin's Q	-5.8910 (0.0000)	-2.8125 (0.0025)	-3.2638 (0.0005)
CGDI	-1.9235 (0.0272)	-7.1403 (0.0000)	-8.8894 (0.0000)

Source: Authors' own findings.

Note: The statistics in the first row represent the estimated coefficients of the variables while the second row in parentheses represents their respective p-values.

The study hypothesized while conducting unit root tests that the series contain unit roots. If the variables in the regression model are non-stationary, it means that the standard assumptions for asymptotic analysis are not valid. However, the results of the study reported in Table 5 indicates that all the test statistics are lower than the critical values, thus the null hypothesis is rejected, implying that the variables are stationary. These results are consistent with studies of Mangunyi (2011), Aduda, Chogii, and Magutu (2013), Mule, Mukras, and Oginda (2013) and Lekaram (2014) which found that firm performance variables and corporate governance variables are stationary at level.

Table 6 presents the results of the panel data regression models using various variables for financial performance of selected companies. The Model I, II and III uses Return on Asset (ROA), Return on Equity (ROE) and Tobin's Q, respectively, as the measures of financial performance. The Hausman test statistic reveals that for the regression Model I and Model II, the random effect model is the most appropriate model, on the contrary fixed effects model has been found appropriate for the regression Model III. The results shows that for ROA and ROE as dependent variables, the CGDI has a significant positive impact on the financial performance while for the Tobin's Q as dependent variable, the relationship comes out to be negative.

Table 6: ImpactofCGDIonFinancial Performance Using Appropriate Model Model I

	Model I ROA	Model II ROE	Model III Tobin's Q
CGDI	0.298*	0.412*	-0.123
Firm's Leverage	-0.071	1.276*	0.193
Firm's Liquidity	-1.259	7.036	-8.610**
Firm's Age	0.365	-5.007	5.167***
Firm's Size	-2.271*	-1.577***	-0.551
Constant	-5.765**	-4.085	6.424
Observations	504	504	504
R-squared	0.144	0.097	0.480
Hausman Test (Chi-square statistic)	11.02***	4.84	19.11*

*Source: Authors' own findings.

*Notes: *, ** and *** indicate significance at 1%, 5% and 10% levels, respectively.*

It can be further seen in the Table 6 that when CGDI is changed by 1 per cent, the ROA has changed by 29 per cent approximately (see Column 1 of Table 6). For ROA as the dependent variable, the R-square has been observed as 0.144, indicating that 14.4% per cent of variance in dependent variable is explained by the predictor variables. Additionally, in the Model II, the 1 percent change in the CGDI has brought about 41.2 percent change in the ROE, this is quite a significant number. The value of the R-square for the Model II is 0.097 which is not very convincing. It states that on 9 percent of the variance in independent variable is explained by the predictor variable. The study has observed that CGDI has a positive impact on the financial performance measures, which is consistent with the previous studies like Kohli and Saha (2008)and Balasubramanian et al. (2010). The study of Balasubramanian et al. (2010) also found a positive relationship for the overall governance index and sub-indices covering shareholder rights and disclosure for Indian firms. Furthermore, contrary to our expectations, Tobin's Q has been found to have a negative association with the CGDI; however, the relationship is not significant at 5 percent level of significance. There are some past studies like Bauer et al. (2004) which have observed a negative relationship between governance standards and firm performance. However, we cannot presume that CGDI has a negative impact on Tobin's Q because of the lack of significance level.

The control variables have shown a mixed result for the various models, like, where on the one side firm leverage has shown a negative association with the firm performance in the Model I, and on the other side it has been found to be positively associated with firm performance in Model II and Model II. Similar is the case with firm liquidity which is found to have positive impact on firm performance as per Model II, while negative association has been observed as per Model I and Model III. For the firm size, the overall association is found negative while in case of the firm age there are mixed results. The association of the firm age with the financial performance has been found to be insignificantly positive for Model I and Model III, but it is found to have an insignificant negative relationship with the performance as per Model II. The findings are somewhat in line with those stated in the studies done by Javed and Iqbal (2006) and Bijalwan and Madan (2013).

Conclusion

The present study intends to examine the impact of corporate governance disclosure practices on the firm performance. The comprehensive Corporate Governance Disclosure Index (CGDI) has been developed which encompasses a wide number of corporate governance parameters and its impact on firm performance has been estimated using panel data regression fixed effect and random effects method. The results have reported that CGDI is been positively associated with the measures of financial performance for the companies operating in the Indian Financial Service Sector except for Tobin's Q. The findings of the study suggests for the sample of Indian Financial Service Companies more corporate governance disclosure could lead towards the enhanced financial performance.

Managerial Implications

Corporate governance regulations have evolved in India in the recent past at a significant pace and many issues related to failure of governance mechanism have come across as well. So it has come up as an important area for the managerial personnel and investor community to pay attention to. The present study has highlighted that CGDI contributes to the firm performance as it has a positive and significant relationship with the profitability of Indian Financial Service Companies. Responsibilities of the Board (ROB), Rights and Equitable Treatment of Shareholders (RSH), Role of Stakeholders (RST) and Disclosures and Transparency (DAT) are vital areas which lead to the increased profitability of concerns. The findings of the study leads the managers and other interested parties to the notion that the firms which follows the corporate governance practices and transparency in reporting would enjoy an increased confidence of the different communities dealing with the company which would result into improved financial health of the organisation.

Findings of the present study have many important implications for the policy makers, investor community and business houses to focus the efforts to enhance the governance standards. The results of the present study are mostly consistent with the results of earlier studies that there is a significant impact of CGDI on company's profitability. For enhanced disclosures, the investors would also have positive perception about organisations which would reduce the possible funding costs. Further, the CGDI is a vital and causal factor in explaining financial performance of firms. The present study has attempted to capture almost all the parameters which have helped in getting the more robust output and reliable results.

Scope for Future Research

The study leaves scope for further research, by inclusion of the left out parameters in the construction of index. Future researchers can intricate in this area by using broader spectrum of parameters and can also move ahead with the weighted index methodology of CGDI construction to get more meaningful results. It can also be further amplified by using qualitative aspects of the study rather than the quantitative aspect. Additionally, there are number of other factors which influence the performance of a firm but could not have been used due to time and data limitation. The attempt of the present study will generate further debate on the issue and reason additional research in this area, specifically in the context of developing countries.

References

➢ Aduda, J., Chogii, C., & Magutu, P. (2013). An empirical test of competing corporate governance theories on the performance of firms listed at the Nairobi Securities Exchange. *European Scientific Journal, 9(13), 107–137*

➢ Arora, A., & Sharma, C. (2015). Impact of firm performance on board characteristics: Empirical evidence from India. *IIM Kozhikode Society and Management Review*, 4(1), 53–70.

➢ Bagchi, D. (2011). An analysis of relationship between corporate governance of firms and their capital market performance. *The IUP Journal of Applied Finance, 17(2), 5–15.*

➢ Balasubramanian, N., Black, B., & Khanna, V. (2010). The relationship between firm-level corporate governance and market value: A study of India. *Emerging Markets Review, 11(4), 319–340.*

➢ Bauer, R., Guenster, N., & Otten, R. (2004). Empirical evidence on corporate governance in Europe. *Journal of Asset Management, 5(2), 91–104.*

➢ Baxi, C.V. (2005). The current context of corporate governance in India. *Global Business Review, 6(2), 303–314.*

- Baysinger, B., & Butler, H. (1985). Corporate governance and the board of directors: Performance effects of changes in board composition. *Journal of Law, Economics and Organization, 1(1), 101–124.*
- Beiner, S., Drobetz, W., Schmid, M.M., & Zimmermann, H. (2006). An integrated framework of corporate governance and firm valuation. *European Financial Management, 12(2), 249–283.*
- Ben, P.J. (2014). Corporate governance index and firm performance. *Journal of Contemporary Research in Management, 9(3), 33–44.*
- Bijalwan, J., & Madan, P. (2013). Corporate governance practices, transparency and performance of Indian companies. *The IUP Journal of Corporate Governance, XII(3), 45–79.*
- Black, B.S., Jang, H., & Kim, W. (2006). Does corporate governance predict firms' market values? Evidence from Korea. *The Journal of Law, Economics, and Organization, 22(2), 366–413.*
- Braga-Alves, M.V., & Shastri, K. (2011). Corporate governance, valuation, and performance: Evidence from a voluntary market reform in Brazil. *Financial Management, 40(1), 139–157.*
- Brown, L.D., & Caylor, M.L. (2006). Corporate governance and firm valuation. *Journal of Accounting and Public Policy, 25(4), 409–434.*
- Cadbury Committee. (1992). Report of the committee on the financial aspects of corporate governance. London: Financial Reporting Council.
- Chakrabarti, R.M. (2008). Corporate governance in India. *Journal of Applied Corporate Finance, 20(1), 59–72.*
- Cheung, Y.L., Connelly, J.T., Jiang, P., & Limpaphayom, P. (2011). Does corporate governance predict future performance? Evidence from Hong Kong. *Financial Management, 40(1), 159–197.*
- Core, J.E., Guay, W.R., & Rusticus, T.O. (2006). Does weak governance cause weak stock returns? An examination of firm operating performance and investors' expectations. *The Journal of Finance, LXI(2), 655–687.*
- Epps, R.W., & Cereola, S.J. (2008). Do institutional shareholders services corporate governance ratings reflect a company's operating performance? *Critical Perspectives on Accounting, 19(8), 1135–1148.*
- Ertugrul, M., & Hegde, S. (2009). Corporate governance ratings and firm performance. *Financial Management, 38(1), 139–160.*
- Fama, E.F., & Jensen, M.C. (1983). Separation of ownership and control. *Journal of Law and Economics, 26(2),301–326.*
- Ganguli, S., & Agrawal, S. (2009). Ownership structure and firm performance: An empirical study on listed mid-cap Indian companies. *The IUP Journal of Applied Finance, 15(12), 38–52.*
- Garg, A. (2007). Influence of board size and independence on firm performance: A study of Indian companies.*Vikalpa, 32(3), 39–60.*
- Gompers, P., Ishii, J., & Metrick, A. (2003). Corporate governance and equity prices. *The Quarterly Journal of Economics, 118(1), 107–155.*
- Javed, A., & Iqbal, R. (2006). Corporate governance and firm performance: Evidence from Karachi Stock Exchange. *The Pakistan Development Review, 45(4), Part II, 947–964.*
- Johnson, S., Moorman, T., & Sorescu, S. (2009). A reexamination of corporate governance and equity prices. *The Review of Financial Studies, 22(11), 4753–4786.*
- Khatab, H., Masood, M., Zaman, K., Saleem, S., & Saeed, B. (2011). Corporate governance

and firm performance: A case study of Karachi Stock Market. *International Journal of Trade, Economics and Finance, 2(1), 39–43.*

- Kohli, N., & Saha, G. (2008). Corporate governance and valuations: Evidence from selected Indian companies. *International Journal of Disclosure and Governance, 5(3), 236–251.*
- Kumar, N., & Singh, J.P. (2013). Effect of board size and promoter ownership on firm value: Some empirical findings from India. *Corporate Governance: The International Journal of Business in Society, 13(1), 88–98.*
- Larcker, D.F., Richardson, S.A., & Tuna, I. (2007). Corporate governance, accounting outcomes, and organizational performance. *The Accounting Review, 82(4), 963–1008.*
- Lehmann, E., & Weigand, J. (2000). Does the governed corporation perform better?
- Governance structures and corporate performance in Germany. *European Finance Review, 4(2), 157–192.*
- MacAulay, K., Dutta, S., Oxner, M., & Hynes, T. (2009). The impact of a change in corporate governance regulations on firms in Canada. *Quarterly Journal of Finance and Accounting, 48(4), 29–52.*
- Mangunyi, E. (2011). Ownership structure and corporate governance and its effects on performance: A case of selected banks in Kenya. *National Journal of Business Administration, 2(3), 1–17.*
- Mule, R.K., Mukras, M.S. and Oginda, M.N. (2013). Ownership concentration and financial performance of listed firms in Kenya: An econometric analysis using panel data. *European Scientific Journal, 9(28), 194–211.*
- Pattnayak, P.D. (2012). Impact of corporate governance practices on firm performance: An empirical evidence of the small and medium enterprises in India. *International Journal of Research in Commerce, IT and Management, 2(9), 119–123.*
- Retolaza, J.L., Roqueñi, M.R., & San-Jose, L. (2014). Ontological stakeholder view: An innovative proposition. *Global Business Review, 15(1), 25–36.*
- Sahu, T., & Manna, A. (2013). Impact of board composition and board meeting on firms' performance: A study ofselected Indian companies. *Vilakshan, 10(2), 99–112.*
- Sarkar, J., Sarkar, S., & Sen, K. (2012). A corporate governance index for large listed companies in India. *Indian Accounting Review, 16(1), 1–16.*
- Shleifer, A., & Vishny, R. (1986). Large shareholders and corporate control. *The Journal of Political Economy,94(3), 461–488.*
- Sinha, R. (2006). Corporate governance and shareholder value analysis. *Global Business Review, 7(1), 1–16.*
- The Companies Act. (2013). Ministry of Corporate Affairs, Government of India. Retrieved from http://www.mca.gov.in/MinistryV2/companiesact.html
- Vafeas, N. (1999). The nature of board nominating committees and their role in corporate governance. *Journal of Business Finance and Accounting, 26(1–2), 199–225.*
- Varshney, A., Kaul, V., & Vasal, V. (2012). Corporate governance index and firm performance: Empirical evidence from India (pp. 1–35).
- Xie, B., Davidson III, W.N., & DaDalt, P.J. (2003). Earnings management and corporate governance: The role of board and audit committee.*, 9(3), 295–316.*

TEMPORAL DYNAMICS OF INCOME IN PUNJAB: AN ECONOMIC ANALYSIS

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Abstract

Economic Development deals with the changes in the economic, political and behavioral system like self-reliance, industrialization, import substitution which is the basic requirement for the growth and transformation of the society, thus reflecting the change from the convectional status to a modern and scientific status. Various indicators are available like national income, indices of sectoral production, money supply, per capita income, rate of saving and investment etc. to measure the dynamics of Indian economy. The national income and per capita income is regarded as one of the best indicators as other indicators covers only some section of an economy. Therefore, this present study uses t-test, Anova test and Tuckey test to check any significance difference between various periods in primary, secondary and tertiary sector of the Punjab economy. The study concluded that the relative share of primary sector has decreased continuously during the whole time span from 1970-2018. This reduction in the primary sector was absorbed in larger amount by the blooming tertiary sector in comparison to secondary sector.

Keywords: Primary sector, Secondary sector, Tertiary sector, Punjab economy, Net State Domestic Product, Economic Development.

Introduction

Economic Development deals with the changes in the economic, political and behavioral system like self-reliance, industrialization, import substitution which is the basic requirement for the growth and transformation of the society, thus reflecting the change from the convectional status to a modern and scientific status (Bhattacharya, 1972; Todaro, 1989). Eventually, the purpose of the economic development is the curtailment in the unemployment, poverty, inequalities and further upliftment in the living standard of people. As observed in the United Nations Development Decade Report (1962) that "Development is growth plus change; change in turn is social, cultural as well as economic and qualitative as well as quantitative". Various indicators are available like national income, indices of sectoral production, money supply, per capita income, rate of saving and investment etc. to measure the dynamics of Indian economy. The national income and per capita income is regarded as one of the best indicators as other indicators covers only some section of an economy (Rao, 1983). Kuznets (1955) explored the causes and consequences of the long term fluctuations in the personal distribution of income i.e., how they are affecting the country's economic growth. Therefore, this present study, "Temporal Dynamics of Income in Punjab" delivers the evolution and fundamental variations in the income of the Punjab economy at different period of time.

Model and Methodology

For temporal dynamics of income, both sector-wise and subsector-wise NSDP data of Punjab have been used. Time series analysis is used to examine the temporal dynamics of income in Punjab. The various statistical techniques that are used for the analysis are: Mean, Average, One way ANOVA, t-test, CAGR. Tuckey test is also used for the further interpretation of the one way ANOVA.

t-test: In order to check whether there is any significance difference between average yearly progress rates of NSDP at constant (2011-12) values for various sectors and sub-sectors of Punjab during pre-reform period and post-reform period, we have applied the t-test for independent samples, can be calculated as:

$$t = \frac{\overline{X} - \overline{Y}}{S\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \text{ ---------------------------------(1)}$$

Where $\overline{X}$ and $\overline{Y}$ respectively are the means of the two sections which are to be compared. Also S is given by using the:

$$S = \sqrt{\frac{\sum (X - \overline{X})^2 + \sum (Y - \overline{Y})^2}{n_1 + n_2 - 2}} \text{ ----------------------------- (2)}$$

And is the pooled unbiased sample standard deviation.

Decision Rule: If the t calculated (value of the t-test obtained from equation number 2) is less than t tabulated at required level of significance and at $n_1 + n_2 - 2$ degrees of freedom then our null hypothesis will be accepted otherwise null hypothesis will be rejected and alternative will be accepted.

Also as we have utilized the SPSS-21 which facilitate us with the a sig(P) value for each desired level of significance which helps us in taking decision whether the null hypothesis is accepted or rejected. So suppose if we are utilizing 5% level of significance so our null hypothesis will be accepted if sig (P) value will be more than 0.05. But if the sig(P) value will be smaller than 0.05 then our null hypothesis will be rejected and alternative hypothesis will be accepted.

One Way ANOVA: One way ANOVA is a statistical technique for separation of variances ascribable to one group of cause from another group of cause. The ANOVA is a test of null hypothesis where null hypothesis includes that samples which are drawn from the populations have the same mean value. The main purpose of this test is to test for significant difference between the classes means and for this analysis of variance is done. In order to understand whether there is any significance difference between average annual growth rates for the different sectors on the three different periods 1970-86, 1986-02 and 2002-2018, we have applied one way ANOVA.

Tuckey Test: It is also a statistical tool to determine the relationship between two sets of data. When ANOVA test provides the significant difference of two class means, then Tuckey post hoc test is applied to know which group is significantly differs from other group.

Literature Review

Singh Inderjeet (2000) scrutinized the structural change in Punjab economy for the year 1969-70 and 1983-84 with the input-output tables based on the U-W classification of Chenery-Watanable of Leontief formalism.SekhonSuchetra (2004) analyzed the growth of tertiary sector in Punjab from 1973-74 to 2002-03 and found that the growth of service sector in the Punjab economy is based on traditional service sectors like trading, hospitability, banking insurance and real estate i.e. still on the path of development. KaurRavneet (2011) evaluated the pattern of growth of services sector from 1970-71 to 2009-10 in Punjab. The main conclusion arises out of the study is that due to the existence of social turmoil in the Punjab economy for the very long time after militancy period and also due to over-dependence on agriculture sector, state has lagged behind in comparison to other states in the development of tertiary sector. KaurPrabhjot (2016) examined Punjab Economy has been suffering from various crisis since 1980 but the recovery and progress of Punjab Economy depends upon how well government and all people manage and utilize resources. Singh Amarjeet and Singh Jaspal (2017)examined the comparative analysis of Punjab and Haryana economy from 1980-81 to 2014-15 at 2004-05 prices and suggested that in order to decrease the dependence of population of agriculture sector, there is a dire need to transfer the population from primary to secondary and services sector. Thind and Singh (2018) explored the structural change and economic growth across 15 major states of India covers 30 year period from 1983-84 to 2014-15 and concluded that structural changes have contributed positive growth; even structural changes contributed higher than the within component to overall productivity growth in all states except Maharashtra.

By reviewing the literature as discussed above, it is concluded that mostly all the studies done either at disaggregated level or on the structural change level or some studies on the basis of economic growth which is too aggregative in nature. The present study examines the temporal dynamics of Income in Punjab. It provides the growth and structural changes in the income of the Punjab economy at different period of time. Most of the studies are based on individual sub-sectors and also covering overall economy wise aggregates but this study is fortified with disaggregated data.

Growth of Net State Domestic Product

According to the temporal dynamics of state's income, the data is clubbed into four years from 1970's onwards till 2018. Further, the data is divided into three broad periods i.e., 1970-86, 1986-2002 and 2002-18 along with the explanations of pre-reform time (1970-90) and post-reforms time (1991-2018) in order to receive a clearer picture of the Punjab economy.

Table 1: AAGR (%) of NSDP at Constant (2011-12) Prices for Various Sectors and Sub-sectors of Punjab Over Different Periods

Sector	1970-74	1974-78	1978-82	1982-86	1986-90	1990-94	1994-98	1998-02	2002-06	2006-10	2010-14
Crops	1.69	5.74	5.39	6.45	5.39	2.15	-1.04	3.60	0.45	1.96	0.90
Livestock	3.69	6.30	3.38	5.45	6.76	6.56	6.22	2.68	4.94	1.30	3.37
Forestry &Logging	7.26	8.99	5.75	0.87	-0.68	1.92	4.62	3.87	1.16	3.09	0.92
Fishing	1.44	7.68	6.06	7.75	22.44	26.22	19.18	12.58	9.88	2.37	0.73
Mining & Quarrying	-29.24	8.54	26.66	-3.56	54.71	5.68	-184.28	65.97	31.19	6.90	50.48
Total Primary	2.39	5.84	4.97	5.62	5.04	2.93	0.89	3.42	1.63	1.88	1.56
Manufacturing	8.98	10.84	10.45	8.93	8.79	8.61	6.25	1.93	6.23	15.96	5.31
Construction	-1.49	8.74	-3.47	-0.47	1.83	4.12	12.84	6.64	12.57	9.99	72.23
Electricity, gas and	10.04	10.35	12.98	11.61	13.62	11.76	4.82	0.65	6.75	17.77	18.2

	water supply											1	
Sub Total Secondary		6.02	9.54	8.02	8.49	9.81	9.42	5.97	1.57	6.88	15.69	2.76	5.85
9	Transport,Storage& Communication	6.45	6.99	33.66	6.73	7.97	4.42	13.81	21.10	11.56	8.68	5.31	8.40
10	Trade,Hotels&Resta urants	6.99	10.58	6.39	2.76	4.23	3.45	5.47	5.45	4.83	5.52	8.08	6.57
11	Banking&Insurance	4.41	9.41	15.02	9.59	16.12	4.54	20.32	4.28	10.01	17.14	14.2 2	4.03
12	Real estate,Ownership of Dwellings	1.47	1.71	8.86	3.58	4.04	-1.36	2.11	-0.05	0.47	2.51	4.33	6.24
13	Public Administration	3.56	4.74	17.97	6.96	12.59	5.36	7.12	6.14	3.76	10.61	7.25	7.98
14	Other Services	5.42	6.39	3.58	3.11	2.86	2.80	3.55	3.17	3.15	8.44	9.59	9.81
Sub Total Tertiary		3.57	4.97	7.32	3.64	4.70	1.40	4.86	3.95	4.06	7.20	7.88	7.22
Total NSDP		3.11	5.80	6.05	5.05	5.41	3.19	3.10	3.27	3.44	6.68	4.51	5.37

Source: Calculated from Economics & Statistical Organization of Punjab.

Table 2: AAGR (%) of NSDP at Constant (2011-12) Prices for Various Sectors and Sub-sectors of Punjab during 1970-86, 1986-02 and 2002-18

SN	Sector	1970-86	1986-2002	2002-2018
1	Crops	5.03	2.53	0.89
2	Livestock	4.77	5.56	3.73
3	Forestry &Logging	5.62	2.43	1.68
4	Fishing	6.02	20.11	5.13
5	Mining & Quarrying	2.59	-14.48	231.00
Sub Total Primary		4.89	3.07	1.82
6	Manufacturing	9.85	6.40	8.62
7	Construction	0.98	6.36	24.32
8	Electricity, gas and water supply	11.33	7.71	4.14
Sub Total Secondary		8.15	6.69	7.79
9	Transport,Storage&Communication	13.93	11.82	8.49
10	Trade,Hotels&Restaurants	6.66	4.65	6.25
11	Banking& Insurance	9.95	11.31	11.35
12	Real estate,Ownership of Dwellings	4.07	1.19	3.39

13	Public Administration	8.62	7.80	7.40
14	Other Services	4.57	3.09	7.75
Sub Total Tertiary		4.96	3.73	6.59
Total NSDP		5.13	3.74	5.00

Source: Economics & Statistical Organization of Punjab

Table 3: AAGR (%) of NSDP at Constant (2011-12) Prices for Various Sectors and Sub-sectors of Punjab during Pre Reform and Post Reform Period

SN	Sector	1970 to 90 (Pre Reform)	1991-2018 (Post Reform)
1	Crops	5.10	1.07
2	Livestock	5.19	4.18
3	Forestry &Logging	4.29	2.43
4	Fishing	9.47	9.59
5	Mining & Quarrying	13.56	124.57
Sub Total Primary		4.92	1.98
6	Manufacturing	9.63	7.34
7	Construction	1.16	18.98
8	Electricity, gas and water supply	11.81	4.04
Sub Total Secondary		8.50	6.70
9	Transport, Storage & Communication	12.67	10.95
10	Trade,Hotels&Restaurants	6.15	5.96
11	Banking& Insurance	11.25	10.97
12	Real Estate,Ownership of Dwellings	4.06	2.23
13	Public Administration	9.46	7.11
14	Other Services	4.21	6.02
Sub Total Tertiary		4.91	5.53
Total NSDP		5.19	4.30

Source: Economics & Statistical Organization of Punjab

From the above table no.1, it is clear that primary sector has shown an increase in Annual Average Growth Rate (AAGR) from period 1970-74 to 1974-78. The growth rates for these periods are 2.39 and 5.84. Thereafter the progress has weakened during 1978-1982 and is 4.97 percent for this period. It again has raised in the period 1982-1986 with 5.62 percent and thereafter primary sector has observed a significant decrease in AAGR till the period 1994-1998 where the growth rate are observed as 5.04 percent in period 1986-1990, 2.93 percent in the period 1990-94 and 0.89 percent in the period 1994-1998. After this period, again the AAGR has been raised to 3.42 percent in the period 1998-2002. In the period 2014-2018, the AAGR has been raised after the decrease in the previous period and is 2.20 percent for the primary sector. So from the table 1, we can conclude that the AAGR for the primary sector is lowest in the period 1994-1998 and is 0.89 percent. Also, it can be seen that the AAGR is highest for 1974-78 and is 5.84 percent. The picture will be clearer during 1970-86 when primary sector experienced a highest rate of growth of 4.89 per cent and then 3.07 per cent and 1.82 per cent in 1986-2002 and 2002-18. Even in pre-reform period, the rate of growth is highest (4.92 percent) in comparison to post-reform period (1.98 per cent). Crops has followed exactly same pattern as overall primary sector has shown. The AAGR is highest in the period 1982-1986 and is 6.45 percent and is lowest in the period 1994-1998 and is negative with a value of -1.04 percent. The AAGR of Livestock has been fluctuating as can be seen from the table 1 that there are many ups and downs from period to period. In the period 1970-1986 the growth rate can be noticed as 4.77 percent which has been raised to 5.56 percent in the period 1986-2002. There after a decrease can be observed in the period 2002-2018 with a value of 3.73 percent. Also during pre-reform period, the annual growth rate for Livestock has been 5.19 percent which decreased significantly to 4.18 after reform period. The trend of Forestry and Logging is also fluctuating during the whole period. The minimum AAGR is observed for the period 1986-1990 with a negative growth rate of -0.68 percent and the highest AAGR has been observed 8.99 percent in the period 1974-1978. Also in pre reform period the growth is 4.29 percent which decreased to 2.43 percent in the post reform duration. The Fishing sector has registered highest growth rate in the period 1990-1994 with a percentage of 26.22. The lowest growth can be seen in the period 2010-2014. In this sector, an increase in AAGR can be seen after pre reform period. The AAGR elevated from 9.47 percent to 9.59 in post reform period. The depression is observed in Mining and Quarrying sector in period 1986-2002 from an annual growth rate of 2.59 percent in the period 1970-1986 to an undesirable decay rate of -14.48. But then a significantly increase, an all-time high rate of average growth rate of 231 percent among all of the primary sub sectors has been observed in the period 2002-2018. This is also evident from the table 3 that the AAGR for Mining and Quarrying sector in pre reform period has been 13.56 percent, which raised to 124.57 percent in post reform times.

In the secondary sector, highest percentage of growth can be observed in the period 2006-2010 of 15.96 percent as per the table 1 and the lowest average growth rate is in the period 1998-2002 of 1.57 percent. From the table 2, it is evident that the maximum AAGR is in the period 1970-1986 and is 8.15 percent. The lowest AAGR is in the period 1986-2002. As per the table 3, AAGR for the pre reform period is higher than that of the post reform period. In the pre reform period, the AAGR is 8.50 percent and in the post reform period, it is 6.70 percent. In the secondary sector, the AAGR of manufacturing is highest in pre reform period and is 9.63 percent which has been declined to 7.34 percent in the post reform period. Construction sector has been witnessed with a significant boom after the pre reform period. The AAGR in pre reform period is only 1.16 percent which has been raised to 18.98 percent in post reform period. Electricity, water supply and Gas recorded a decline in the growth rates from 11.81 per cent in pre reform period to 4.04 percent in post reform period.

The tertiary sector exhibited, however a little bit accelerated pattern of growth of 6.59 per cent in 2002-18 from 4.96 per cent in 1970-1986 with the relatively smaller decline during mid-period in 1986-2002 at 3.73 per cent. The sub-sector storage, transport, and communication represent the maximum growing rate of 33.66 per cent during 1978-1982 but it went down to 10.95 per cent in post-reform period from 12.67 per cent in pre period. All the remaining subsectors in tertiary sector also experienced a decline in the growth rate in post- period in comparison to pre-period except other services. Other services recorded an increase of 6.02 per cent in post-reform period from 4.21 per cent in pre-reform period.

The growth rate of overall NSDP was exposed to see-saw trend as sometimes it was growing and sometimes declining. In total NSDP, there was also a decline in the AAGR in post reform period with a percentage of 4.30 than in pre reform period with a value of 5.19 percent. So from above, it can be concluded that in most of the subsectors, there was a decline in AAGR in post reform period except few subsectors like fishing subsector and mining and quarrying sub sector in primary sector, construction in secondary sector and other services subsector in tertiary sector.

An Application of t-test, Anova and Tuckey test

Now let us check whether there is any significance difference between the two periods that is pre reform period and post reform period. For this, first of all t-test of independent samples has been applied on all of the sectors taken together and then this test has been applied on primary sector, secondary sector and then finally on the tertiary sector. The analysis of the same is given below.

Table 4: t-test for AAGR (%) of NSDP at Constant (2011-12) Prices for Various Sectors and Sub-sectors of Punjab during Pre-Reform Period and Post-Reform period

t– test							
						95% Confidence Interval	
Sector	T	Df	Sig (P) value (2-tailed)	Mean Difference	SE Difference	Lower	Upper
Overall	-0.854	28	0.400	-6.666	7.807	-22.659	9.326
Primary	-0.842	10	0.419	-16.565	19.663	-60.378	27.248
Secondary	-0.406	4	0.706	-2.14	5.276	-16.789	12.509
Tertiary	0.442	10	0.639	.968	2.00	-3.488	5.424

Source: Author’s Calculation

From the table 4, it is clear that t values for overall sectors, primary sector, secondary sector and tertiary sectors are -0.854, -0.842,-0.406 and 0.442 respectively and the sig (P) values for the same are 0.400, 0.419, 0.706 and 0.639 respectively. So from here, it can be concluded that there is no significance difference between the growths of overall, primary, secondary and tertiary sectors in the pre reform and post reform period.

Further in order to understand whether there is any significance difference between AAGR of NSDP at constant (2011-12) prices for all sectors of Punjab during 1970-86, 1985-2002 and 2000-2018, we have applied the one way analysis of variance year wise. It is clear from the following table:

Table 5: One Way ANOVA Table for AAGR Year Wise for all Sectors

	Sum of Squares	d.f	Mean Square	F	Sig (P) value
Between Groups	2897.407	2	1448.704	1.176	0.319
Within Groups	51758.864	42	1232.354		
Total	54656.271	44			

Source: Author's Calculation

From table 5, it is clear that the F value is 1.176 which is not significant as the sig (P) assessment is larger than 0.05 and is 0.319. So from here, it can be determined that there is no noteworthy dissimilarity in the AAGRs of NSDP for various sectors in the years 1970-86, 1986-2002 and 2002-2018.

Further in order to understand whether the growth is significant between any of the two periods, Tuckey test is applied for multiple comparisons and the result is of the same is as under:

Table 6: Tuckey Test for Multiple Comparisons on AAGR Year Wise for all Sectors

Multiple Comparisons (Tuckey-HSD)						
(I) Variable	(J) Variable	Mean Difference (I-J)	Standard Error	Sig (P) Value	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	2.145	12.818	0.985	-28.997	33.287
	3	-15.84	12.818	0.439	-46.989	15.295
2	1	-2.145	12.818	0.985	-33.287	28.997
	3	-17.99	12.818	0.348	-49.135	13.149
3	1	15.84	12.818	0.439	-15.295	46.989
	2	17.992	12.818	0.348	-13.149	49.135

Source: Author's Calculation

Again from the above table 6, it can be established that year wise there is no noteworthy dissimilarity between the three periods as all of the sig (P) values are greater than 0.05 hence there is insignificant difference between all sectors taken together in the three periods.

Further in order to understand whether there is any significance difference between AAGRs of NSDP at constant (2011-12) prices for primary sectors of Punjab during 1970-86, 1986-02 and 2002-2018, we again have applied the one way analysis of variance year wise. The results of the same are given as below"

Table 7: **ANOVA Analysis for AAGRs Year Wise for Primary Sector**

ANOVA					
	Sum of Squares	d.f	Mean Square	F	Sig (P) value
Between Groups	6060.640	2	3030.320	0.962	0.404
Within Groups	47231.713	15	3148.781		
Total	53292.353	17			

Source: Author's Calculation

Table-7 shows that the value of F statistics is 0.962 and is insignificant as the sig (P) value is greater than .05 and is 0.404, so it can be concluded from here that there is no significance difference between the primary sectors distributed in the three different periods.

In addition to this, an attempt has been made to analyze whether there is any significance difference between the primary sectors between any two periods. For this Tuckey Test has been applied and the analysis for the same is as under:

Table 8: Tuckey Test for Multiple Comparisons on AAGRs for Primary Sector

Multiple Comparisons (Tuckey – HSD)						
					95% Confidence Interval	
(I) Groups		Mean Difference (I-J)	Standard Error	Sig (P) value	Lower Bound	Upper Bound
1	2	3.385	32.397	0.994	-80.766	87.536
	3	-37.121	32.397	0.502	-121.273	47.029
2	1	-3.38	32.397	0.994	-87.536	80.766
	3	-40.507	32.397	0.443	-124.65	43.644
3	1	37.121	32.397	0.502	-47.029	121.273
	2	40.507	32.397	0.443	-43.644	124.658

Source: Author's Calculation

From Table 8, year wise there is insignificant variance between the three periods hence there is no significant difference between primary sectors taken together in the three periods.Same analysis is repeated for the secondary sector and the ANOVA table for the same is given below:

Table 9: **ANOVA Table for AAGRs Year Wise for Secondary Sector**

ANOVA					
	Sum of Squares	d.f	Mean Square	F	Sig (P) value
Between Groups	74.561	2	37.281	0.650	0.555
Within Groups	344.38	6	57.39		
Total	418.944	8			

Source: Author's Calculation

It is clear from the table 9 that the F statistics is 0.650 and is insignificant as the sig (P) value is superior than 0.05 and is 0.555 so it can be concluded from here that there is no noteworthy dissimilarity amongst the secondary sectors distributed in the three different periods.

In addition to this an attempt has been made to analyze whether there is any significance difference between the primary sectors on the two periods. For this Tuckey Test has been applied and the analysis for the same is as under:

Table 10: Tuckey Test for Multiple Comparisons on AAGRs Year Wise for Secondary Sector

Multiple Comparisons (Tuckey - HSD)						
(I) Groups		Mean Difference (I-J)	Standard Error	Sig (P) value	95% Confidence Error	
					Lower Bound	Upper Bound
1	2	0.765	6.185	0.992	-18.214	19.744
	3	-5.687	6.185	0.649	-24.667	13.292
2	1	-0.765	6.185	0.992	-19.744	18.214
	3	-6.452	6.185	0.580	-25.432	12.527
3	1	5.687	6.185	0.649	-13.292	24.667
	2	6.452	6.185	0.580	-12.527	25.432

Source: Author's Calculation

Table-10 shows that year wise there is no significant difference between secondary sectors on the three periods as all of the sig values are larger than 0.05 hence there is no significant difference between secondary sectors taken together in the three periods.

Finally the same analysis is done for the tertiary sector and is given below:

Table 11: ANOVA Analysis for AAGRs Year Wise for Tertiary Sector

ANOVA					
	Sum of Squares	d.f	Mean Squares	F	Sig (P) value
Between Groups	8.454	2	4.227	0.325	0.728
Within Groups	195.376	15	13.025		
Total	203.830	17			

Source: Author's Calculation

Value of F statistics is 0.325 and is insignificant as the sig (P) value is greater than 0.05 and is 0.728 so it can be resolved from here that there is no noteworthy difference between the tertiary sector distributed in the three different periods.

In addition to this an attempt has been made to analyze whether there is any significance difference between the tertiary sectors in the different periods, for this Tuckey Test has been applied and the analysis for the same is as under:

Table 12: Tuckey Test for Multiple Comparisons on AAGRs Year Wise for Tertiary Sector

Multiple Comparisons (Tuckey - HSD)						
(I) Groups		Mean Difference (I-J)	Standard Error	Sig (P) value	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	1.595	2.083	0.729	-3.816	7.008
	3	0.347	2.083	0.985	-5.065	5.759
2	1	-1.595	2.083	0.729	-7.008	3.816
	3	-1.248	2.083	0.823	-6.661	4.163
3	1	-0.347	2.083	0.985	-5.759	5.065
	2	1.248	2.083	0.823	-4.163	6.661

Source: Author's Calculation

In Table-12, there is no noteworthy dissimilarity between tertiary sectors in the three periods as all of the sig (P) values are bigger than 0.05 hence there is no significant difference between tertiary sectors taken together in the three periods.

Conclusion

In the nut-shell it is concluded that during the whole time from 1970-2018, the relative contribution of primary sector has decreased continuously. This reduction in the primary sector was absorbed in larger amount by the blooming tertiary sector in comparison to secondary sector. Even the application of t-test, Anova and Tuckey test also suggests that there is no significance difference between primary, secondary and tertiary sectors of the economy during different periods taken in the study.

References

- Bhattacharya, D. (1972). *The Role of Technological Progress in Indian Economic Development.* World Press.
- Kaur, R. (2011). *Tertiary Sector in Punjab: Growth and Structure.* M.Phil Thesis, Department of Economics, Punjabi University, Patiala.
- Kaur, P. (2016). Rise and Fall of Punjab Economy: Reasons and Remedies. *The Journal of Economics and Finance, 7* (5), 1-5.
- Kuznets, S. (1955). Economic Growth and Income Inequality. *The American Economic Review, 45* (1), 1-30.
- Rao, V. (1983). India's National Income, 1950-80. Sage Publications.New Delhi.
- Sekhon, S. (2004). Growth of Tertiary Sector in Punjab.M. Phil Thesis. Department of Economics. Punjabi University, Patiala.
- Singh, I. (2000). Structural Change in the Punjab Economy: A Study in the Input-Output Framework, in Punjab Economy: Emerging Issues. Guru Nanak University, Amritsar.
- Singh, A., & Singh, J. (2017, November). Comparative Analysis of Punjab and Haryana Economy. International Research Journal of Management and Commerce. 4(11). 1-14.

- Thind, M., & Singh, L. (2018, August). Structural Change and Economic Growth Across Key States of India. Sage Publications. 9(2). 162-182.
- Todaro, M. P. (1989). Economic Development in the Third World. Orient Longman Publishers. New York.
- United Nations Development Report (1962). Proposals for Action **:**Report of the Secretary-General . 1-140.

A STUDY ON CONSUMER BUYING BEHAVIOUR TOWARDS HERBAL COSMETIC PRODUCTS IN BATHINDA DISTRICT OF PUNJAB

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Abstract

Consumer behaviour is one of the massively studied topics by the researchers and marketers in the past and still being studied. The cosmetics and personal care industry is one of the fastest growing consumer products sectors in India with a strong potential for foreign companies. The size of Indian Cosmetics Industry Globally is $274 billion, while that of the Indian Cosmetics industry is 4.6 billion. An average Indian spends 8% of his income on personal care products. Hence, companies are interested to know about consumer's attitude towards cosmetics so as to devise strategies to win over competition. The purpose of this paper is to study the consumer buying behavior towards herbal cosmetics. The study is conducted in Bathinda City, Punjab and a sample of 100 respondents was taken. The study intends to identify the influence of various factors on the purchase of herbal cosmetic products. Both Primary and secondary data were used in research. Mean, standard deviation and percentage methods were used as data analysis statistical tools. People consider quality as the most important factor to purchase cosmetics. The findings may be used to marketers to design marketing strategy for cosmetics.

Keywords: Consumer Buying Behavior, Cosmetics Industry, Personal care

Consumer Behaviour

Consumers are valuable assets for any organization. Consumer is an individual or group of individuals who select, purchase, use, or dispose of products, services, ideas, or experiences to satisfy needs and desires (Solomon et al, 2006). In other words, Consumers are the ultimate destination of any products or services. The study of these individuals, groups, or organizations is what we call Consumer behavior. The processes by which these organizations select, secure, and dispose of products, services, experiences, or ideas to satisfy needs and the impacts that these processes have on the consumer and society (S. Vijayalakshmi et al, 2013). Consumer buying behavior is the study of buying and disposing of goods, services, ideas or experiences by the individuals, groups and organizations in order to satisfy their needs and wants (Kotler and Keller, 2011)

Cosmetics

The word **"COSMETICS"** is derived from the Greek word **"KOSMETIKE TEKHNE"** meaning –technique of dress and ornament and from **"KOSMETIKOS"** meaning skilled in ordering and arranging and from **"KOSMOS"** meaning amongst others "Order" and "Ornament". The Drug and Cosmetics Act, 1940 & Rules 1945 (An Act of Parliament) defines Cosmetics as "Articles which are intended to be rubbed, poured, sprinkled or sprayed on or introduced into or otherwise applied to the human body or any party thereof for cleansing, beautifying, promoting attractiveness or attracting the appearance, and include any article intended for use as a component of cosmetic". The first archaeological evidence of cosmetic usage was found in Ancient Egypt during the period of 10000 BCE and is found till today in 21st Century. But, in 21st Century, the consumer's demand of cosmetics has changed from chemical cosmetics to herbal cosmetics and this shift of preferences towards natural and organic beauty products fosters the growth of cosmetic market.

According to a report by Research and Markets named "India Cosmetic Market Overview" (November,2016), there was a growing trend of CAGR of 17.06% from 2008 to 2016. In 2008, Industry growth was 7% with a business of US$ 2.5 billion. In 2016, the market size of cosmetic industry was US$ 6.5 billion. In recent market research report, "Indian Herbal Cosmetic Market Outlook 2022" it is anticipated that the Indian Herbal Cosmetic industry is expected to reach INR 316 Billion by 2022, growing at a CAGR of 19% over the forecasted period of 2017-2022.

Present Scenario of Herbal Cosmetic Industry

India's cosmetic market was growing with a CAGR of 17.06% over a period of five years. The size of Indian Cosmetics Industry Globally is $274 billion, while that of the Indian Cosmetics industry is 4.6 billion. The current size of the Cosmetics Industry is approx. US$600 million. Industry Sources estimate a rapid growth rate of 20% per annum across different segments of the Cosmetic Industry with an increasing demand of all types of beauty & personal care products.

India's Cosmetics industry market size is expected to raise manifold to $35 billion by 2035, with consumption of cosmetics among Indian teenagers increasing rapidly, says a survey. The market size of India's beauty cosmetics and grooming is expected to touch $35 billion by 2035 from the current level of $6.5 billion says a research study.

The overseas markets have great demand for Indian herbal and natural cosmetic products and exports to countries like the UAE, the USA, the Netherlands, Saudi Arabia, Germany Japan, Malaysia, Nepal, Sri Lanka, UK, China, Indonesia, France, Russia, and Italy. According to CHEMEXCIL, the exports of cosmetics, toiletries and essential oils during 2017 were around USD1007.20 million. The import during the same period was USD703.58 million.

Indian market has herbal cosmetic brands like Forest Essentials, Biotique, Himalaya Herbals, Blossom Kochhar, VLCC, Dabur, Lotus, Jovees, Kama Ayueveda, Patanjali, Just Herbs and many more. The major factors behind the preferences for personal care products include the words such as ' natural', ' Organic', 'botanical', 'free from' some harsh chemical and even ' religious compliance'. Over half of Indian consumers reported 'natural or organic' features influencing hair and skin care purchase decisions. According to 71% consumers they would prefer 'natural' face cream or lotion over other similar products. About 38% said they would buy hair products containing 'botanical' ingredients. Even 'religious compliance' has swayed 17% consumers.

Review of Literature

Isa kokoi (2011) conducted a study in Finnish, to analyse the women buying behaviour patterns towards facial skincare products. The researcher used email as a survey method to collect data. The sample size was 505, but the researcher received only 178 responses. The tools used in this study were Webropol. Based on this study the result found was overall, more than half (51.1 percent) of the women believed that facial skin care products consisting of natural ingredients are better for their skin than products that do not contain natural ingredients.

Dr.M.Subrahmanian (2011) examined in his study "buying behavior of the new aged Indian women in the city of Chennai" with respect to the age, marital status, occupation, professional status factors, etc. to identify the decision maker and the influencer for the purchase made by the women. A sample of 200 women from the few distinct geographical areas of the Chennai city was collected. According to this study the women's value perception is multi-faceted and they are more quality oriented. When it comes to the price attribute women do not opt for the products even if it is heavily priced or low priced but to the maximum prefer when it was reasonably priced within the affordable range.

Siddharth Shriram et al (2012) analyzed Attitude Characteristics of Consumer Buying Behaviour for Male Cosmetics Products in Pune City by using factor analysis. Researchers collected data from 156 male consumers aged 20 to 50 years by using convenience sampling technique. The present study shows that cosmetic is no more a women area. Researchers revealed that self-esteem, anxiety, self presentation, conformity are most dominant factors that affect the male consumer buying behaviour for male cosmetics products.

Mayank Bhatia et al (2013) in his paper titled focused on the perception and preferences of consumers towards green marketing, measure the green values of the customers, identify brands, consumer association with green marketing practices, factors influencing consumer persuasion and to understand the issues and challenges of green marketing. Data was collected through questionnaire filled up by 10 consumers. It was concluded that purchasing intention of green products is affected by green consumer values, green product awareness and perception regarding seriousness of green marketers.

J. Vidhya Jawahar & K. Tamizhjyothi(2013) in their paper Consumer attitude towards Cosmetic Products focused on influence of attitudes on consumer buying behaviour. A questionnaire was developed and collected from 100 female consumers of Bangalore city and the data was analysed through ANOVA, mean and standard deviation. It was concluded that age, occupation, marital status has positive attitude towards cosmetic products except income.

Durmaz &Taşdemir (2014) explained the social class effect on consumer behavior through theoretical approach. Researchers revealed components of social class with reference to some studies they were identified nine variables, grouped into three heads economic, interaction and political groups in an influential synthesis of social class. This study also explained the size of social classes on the basis of The Gilbert-Kahl model and the Coleman- Rainwater model. Researchers also concluded that Consumers have an image of what social class a store attracts and have an understanding of what shopping should be like in a store that appeals to their own social class.

Hemanth Kumar A,H., Franklin John S., Senith S.(2014) studied factors influencing consumer buying behavior in cosmetic products. The main aim of study was to identify the factors influencing consumer buying behavior along with to study influence of income level on consumer buying behavior decisions. Data were collected from 500 respondents. Descriptive statistics including one way ANOVA was used for data analysis. They found that quality and price are the most important factors which can influence consumer buying behavior.

Khaniwale (2015) analyzed the theoretical aspects of consumer buying behavior and revealed the factors that influence the consumer's purchasing process and purchase decision. Researcher also reviewed the relationship between consumer buying behavior and the factors that influence it. This study concluded that the external (Cultural, Social) and internal (Personal, Psychological) factors have significant influence on consumer's behavior which impacts their purchasing process and decision. Having an insight into these factors enables marketers to better know and predict not only the demand of their product or service, but also the purchasing motives and purchasing frequency of the product or service. Author suggested that, if these factors were considered whilst developing new products, it would support in developing products with higher probability of success.

Rameshwari P., Mathivanan R., Jeganathan M., (2016) studied consumer buying behavior of cosmetic products in Thanjavur, Tamilnadu. Main objective of the study is to identify reasons for purchasing cosmeticsand to identify factors influencing consumer buying decision for cosmetic products. Convenient sampling method was used as research method. Factor ranking method was used as statistical technique for analyzing data. In this study, it was found that though cosmetic market is dominated by female consumers, male consumers also participate in the same. The working respondents are more focused about their appearance and ready to buy high end products.

Research Methodology

The research design used in this study is Descriptive Design. Primary data has been collected randomly from 100 respondents from Bathinda District of Punjab by using structured Questionnaire. The secondary data has been collected from related journals, Reports, books and websites. Tools used for analysis of data, certain are Mean, standard deviation and percentage.

Objectives of Study

1. To examine the level of awareness and perception of consumers towards herbal cosmetics.
2. To identify the important factors that determines the buying behaviour.
3. To study the consumer buying behaviour towards herbal cosmetics with respect to store selection.
4. To assess the level of customer satisfaction towards herbal cosmetic products.

DATA ANALYSIS AND RESULTS INTREPRETATION-

Objective 1: Awareness & Perception of consumers towards herbal cosmetics

Table 1: Consumers response towards different renowned herbal cosmetics brands.

Brand Name	Known &Used	Known & Not Used	Not Known
Shahnaz Hussain	33	35	32
Himalaya	80	20	0
Patanjali	82	18	0
VLCC	42	50	8
Lotus	28	58	14
Khadi	5	38	57
Ayur	38	55	7
Emami	5	67	28
Biotique	10	35	55
Dabur	53	45	2
Any Other(specify)	12	0	88

Note: Figures depicts percent of respondents

Table 1 depicts the response of the customers related to the awareness of top brand names of herbal cosmetics. Some brand names like Shahnaz Husain, Khadi and Biotique are not known to customers. But the most of the brands are used by customer.

Table 2: Customers' response with respect to their perception about herbal cosmetics

Statement	Frequency (Percentage)				
	SD	D	N	A	SA
I feel herbal cosmetics are safer to use	4 (4)	0 (0)	15 (15)	63(63)	18 (18)
I feel herbal cosmetics give effective results	5 (5)	2 (2)	23 (23)	47(47)	23 (23)
I feel herbal cosmetics are less damaging to the natural appearance	2 (2)	12(12)	15 (15)	50(50)	22(22)
I feel herbal cosmetics are liked by customers as compared to non herbal cosmetics	3 (3)	17(17)	20(20)	43(43)	17 (17)
I feel herbal cosmetics are of better quality	2 (2)	5 (5)	15 (15)	60(60)	18 (18)
I feel herbal cosmetics are expensive	0 (0)	16(16)	18 (18)	48(48)	18 (18)

Source: Author's calculations based on primary data.

Table 2 depicts the response of the customers related to their perception regarding herbal cosmetic products. Majority of the respondents (81%) feel that herbal cosmetic products are safe to use. On similar lines, approximately 70% of the respondents have provided a positive response with respect to the results delivered by herbal cosmetics. In a comparison between herbal and non herbal products, 60% respondents have given their agreement towards the superiority of herbal cosmetics over chemical cosmetic products. Respondents seem to rate the quality of herbal products better as compared to that of the chemical products with around 78% of them agreeing that herbal cosmetic products are of better quality as compared to chemical cosmetic products. However, as far as the cost of herbal products is concerned, majority of the respondents (66%) agree that herbal cosmetics are expensive as compared to chemical cosmetic products.

Objective 2: Important factors that determines the buying behaviour.

Table.3 Mean and Standard Deviation of the Individual Factors

Factors	Mean	SD
I generally purchase herbal cosmetics brands that I think others will approve it	2.84	1.20
I often observe which type of cosmetics are brought and used by other people	2.72	1.17
If I have little experience with herbal cosmetics , I often ask others about them	3.19	.96
I often gather information from others about herbal cosmetics before purchasing	3.46	1.06
I have favorite brands of herbal cosmetics I buy again and again	3.99	0.90
I regularly change the brands of herbal cosmetics I purchase	2.16	1.06
I am very cautious in trying new herbal cosmetic products	3.40	1.22
I enjoy taking chances in buying unfamiliar brands of herbal cosmetics for comparison	2.26	1.28
I would never buy herbal cosmetics I don't know about at the risk of making a mistake	3.29	1.56
I am the kind of person who would try any new herbal cosmetics once	2.27	1.03
I would rather wait for others to try a selling herbal cosmetics than try it myself	3.12	1.28
I prefer purchasing reputed brands of herbal cosmetics	3.73	1.07
The most advertised brands of herbal cosmetics are usually very good choices	2.81	1.14

I feel herbal cosmetics are of better quality. Getting very good quality herbal cosmetics is very important to me	4.26	0.84
I make special effort to choose the very best quality herbal cosmetics	3.99	0.96
The higher the price of a herbal cosmetic, the better its quality	2.59	1.15
I look carefully to find the best value for the money	4.05	0.90

The above table shows the mean and standard deviation of individual factors. Respondents give more importance to good quality cosmetics (mean = 4.26; SD = 0.84), careful in finding the best value for the money (mean = 4.05; SD = 0.90), making special effort to choose the best quality cosmetics (mean = 3.99; SD = 0.96), frequently buying of favorite brands of cosmetics (mean = 3.99; SD = 0.90), and preference of purchasing well-known brand of cosmetics (mean = 3.73; SD = 1.07). However, enjoying in buying unfamiliar brands (mean = 2.26; SD = 1.28), trying of new cosmetics once in a while (mean = 2.27; SD = 1.03), likeableness of cosmetics and brands by others (mean = 2.54; SD = 1.05), price based quality (mean = 2.59; SD = 1.15), and observing other's purchase and usage of cosmetics (mean = 2.72; SD = 1.17). Hence, it is concluded that consumers are having more conscious on quality, value for money and branding of cosmetic products.

Objective 3: Consumer buying behaviour towards herbal cosmetics with respect to store selection.

Table 4: Attributes considered while selecting particular store

Statement	Frequency (Percentage)				
	SD	**D**	**N**	**A**	**SA**
Convenient Accessibility	0	0	54(54)	28(28)	18(18)
Convenient opening hours	0	11(11)	35(35)	42(42)	12(12)
Availability of good quality cosmetics	0	1(1)	23(23)	68(68)	8(8)
Availability of wider choice	0	0	15(15)	70(70)	15(15)
Reasonable/competitive prices	0	3(3)	30(30)	67(67)	0
Friendliness of sales personnel	0	5(5)	53(53)	42(42)	0
Product Knowledge of sales personnel	0	3(3)	52(52)	38(38)	7(7)

Source: Author's calculations based on primary data.

Table 4 depicts the attributes considered while selecting particular store of the herbal cosmetic products. Half of the customers are neutral regarding accessibility of herbal cosmetic products. Majority of the respondents (approximately 85%) feel that availability of wider choice of herbal cosmetic products is important while selecting store. On similar lines, approximately 76% of the respondents have provided a positive response with respect to the availability of good quality cosmetics. More than half consumers are agreeing upon convenient opening hours are also an important factor while choosing store for herbal cosmetics.

Objective 4: The level of customer satisfaction towards herbal cosmetic products.

Table 5: level of satisfaction towards Herbal Cosmetics

Statement	Frequency (Percentage)				
	SD	**D**	**N**	**A**	**SA**
Variety in Herbal cosmetics	10(10)	36(36)	17(17)	30(30)	7(7)

Quality of Herbal cosmetics	6(6)	40(40)	13(13)	37(37)	4(4)
Pricing of Herbal Cosmetics	3(3)	27(27)	43(43)	22(22)	5(5)
Availability of Herbal Cosmetics	8(8)	33(33)	14(13)	45(45)	0
Performance of Herbal Cosmetics	3(3)	32(32)	22(22)	35(35)	8(8)

Source: Author's calculations based on primary data.

Table 5 depicts the response of the customers related to their satisfaction towards herbal cosmetic products. Approximately 37% of the customers feel that herbal cosmetic products come in lot of variety. On similar lines, approximately 41% of the respondents have provided a positive response with respect to the quality of herbal cosmetics. 45% respondents have given their agreement towards the availability of herbal cosmetics.

Findings

- Consumers are not aware about some top herbal cosmetic brands. But most of the herbal cosmetic brands are used by respondents.
- Majority of the respondents feel that herbal cosmetic products are safe to use.
- Consumers are having more conscious on quality, value for money and branding of cosmetic products.
- Majority of the respondents feel that availability of wider choice and quality herbal cosmetic products are important while selecting store.
- Consumers are not much satisfied with variety and pricing of herbal cosmetics.

Suggestion and Conclusion

Cosmetic products are widely used by people now a days and hence the number of players enter into this business has increased considerably. Companies try to identify the consumer's attitude towards these cosmetic products so that they position their products to the particular category of people rather spending unnecessarily on non-targeted people. This study has provided a platform for the corporate to think on different dimensions what consumers prefer, which make them in deciding on distribution channels. This study also reveal that Consumers are not satisfied with the variety and pricing strategy of the herbal cosmetics so marketer have to do make strategies accordingly. Now a day's consumers are more aware towards herbal cosmetics.

References

- Engel, James F., Blackwell, Roger D., Miniard, Paul W. (1995). Consumer Behaviour, 8th ed. Forth Worth- Tokyo: The Dryden Press.
- H.Hemanth Kumar, A., franklin John, S., Senith, S., (2014) A study on Factors Influencing Consumer Buying Behaviour in Cosmetic Products. Vol 04 Issue 09. International journal of Scientific and Research Publication
- Kotler, P(1999), "Marketing Management" (10th edition) India: Prentice- Hall of India(Pvt.) Ltd.
- Kotler, P., & Keller, K.L. (2011). A Framework for Marketing Management.(5th ed.) Prentic Hall.
- Junaid Abdullah Bin et al (May 2013), "A Study on the Purchase Behavior and Cosmetic Consumption Pattern among Young Females in Delhi and NCR" *Journal of Social and Development Sciences*, Vol. 4, No. 5, pp. 205-211
- Kothari C.R.,"Research Methodology (Methods & Techniques)" 2nd Edition, New Age International Publication

- Leon G. Schiffman & Leslie Lazar Kanuk(2008) , " Consumer Behavior" 9th edition, Prentic Hall.
- Ruchi S & Chaubey DS 2010, 'Uses Pattern of Cosmetics and Perception of Personality: A study of Students doing Professional Courses in Lucknow City', *Business Review*, vol. 5, no.1, pp. 159-170.
- Rameshwari, P., Mathivanan, R., Jeganathan, M., (2016) A study on Consumer Buying Behavior of Cosmetic Products in Thanjavur, Tamilnadu, India.Vol 02 Issue 03, Page No. 598-602. Indo-Asian Journal of Multidisciplinery Research.
- S. Vijayalakshami et al.(2013), " An impact of consumer buying behavior in decision making process in purchase of electronic home appliances in Chennai(India) : an empirical study" Elixir International Journal 59, pp. 15267-15273
- Solomon, M., Bamossy,G., Askegaard, S., Hogg, K.M. (2006), Consumer Behaviour: A European Perspective. Essex: Pearson Education Limited.
- Solomon, M.(1995), "Consumer Behaviour" (3rd edition), Prentic Hall
- Subrahmanian. Mu(2011), "Buying behavior of the new aged Indian women" *Indian Journal of Commerce & Management Studies*, Vol–II , Issue -1
- Siddharth Shriram Shimpi &Dr. D. K. Sinha(, November 2012), "A Factor Analysis On Attitude Characteristics Of Consumer Buying Behaviour For Male Cosmetics Products In Pune City" *International Journal of Marketing, Financial Services & Management Research*, Vol.1 Issue 11, ISSN 2277 3622, pp 78-87
- J Vidhya Jawahar, K. Tamizhjyothi(2013), "Consumer attitude towards Cosmetic Products",*IJEMR*, vol 3, issue 6, ISSN 2249-2585 (Online), ISSN 2249-8672 (Print)
- Mayank Bhatia, Amit Jain(2013), "Green marketing: A study of consumer perception and preferences in India", *Electric Green Journal*, 1 (36),.
- Narges Delafrooz, Mohammad Taleghani, Bahareh Nour(2014), "Effect of green marketing on consumer purchase behaviour", Delafrooz, Taleghani, Nouri, licensee Bloomsbury Qatar Foundation Journals
- http://www.cosmeticsbusiness.com
- http://businesseconomics.in/evolution-indian-cosmetics-industry
- http://www.gcimagazine.com/marketstrends.html
- http://www.indianmirror.com/indian-industries/cosmetics.html
- http://www.assocham.org

SKILL TRAINING IN INDIA: A SYSTEMATIC LITERATURE REVIEW

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Abstract

The purpose of the research paper is to conduct descriptive analysis of the literature available on skill training divided on the basis of geographical framework of India. Systematic Literature Review method is used to classify and analyse 22 studies on skill training conducted in six zones namely northern, southern, eastern, western, central and north eastern zones of India from the year 2010 to 2020. The study reveals the significant impact of skill and vocational training on performance, employment and standard of living of the beneficiaries under study. The study also discusses the fact that skills are integral part of the employment so there is a need to align skill training to industrial requirements and social demands of the country. The study provides insights into the concept of skill development, especially for the development of policies which are needed to be considered by policy makers and for academicians to conduct research in specific areas.

Keywords: *Systematic Literature Review, skill training, geographical framework, India*

Introduction

Section-I

In a number of countries, youth unemployment is a pressing concern. In India, 54% of the country's population is below the age of 25 and faces a high rate of unemployment. Skill India is an initiative to improve the physical and mental development of Indian youths so that the unemployment problem in the country can be reduced. In 2015, the Skill India mission was launched with an aim to train over 400 million people in different skills by 2020. Initiatives under skill India include the National Skill Development Mission, National Policy for Skill Development and Enterpreneurship 2015 and the Skill Loan scheme. The Ministry of Skill Development and Entrepreneurship (MSDE) at the Centre is responsible for coordinating all skill development efforts, while at the State level, it is the state skill ministries (which is often combined with the education ministry).

National Skill Development Mission was launched for creating convergence across various sectors and different States in terms of activities relating to skill training. The mission would, along with consolidating & coordinating skilling efforts, expedite decision making across sectors to achieve quality skilling on a large scale. State Skill Development Missions are fully devolved to the states. They have flexibility to develop programmes for their state. Many follow a similar model to the central initiatives by engaging private training organisations to provide training to priority learners. Most programmes align the certification of their programmes to Sector Skill Councils (SSCs) or the National Council of Vocational Training (NCVT).

The present study is an attempt to systematically review and classify the studies related to skill development in India in accordance to geographical context to understand the skill landscape in that particular zone of the country. This article is structured in the following sequence. After introduction, research methodology is mentioned in section 2. Thematic analysis of the reviewed studies is presented through a table in section 3 of the article. Section 4 provides the results of each analysed study and overall result of all the studies related to a particular zone. Conclusion and recommendations of the study is discussed in section 5 of the article.

Section 2. Research Methodology

To accomplish the purpose of analyzing the studies related to skill training according to geographical framework of India, the strategy of Systematic Literature Review is used. Systematic literature reviews are a means of identifying, evaluating and interpreting all available research relevant to a particular research question, or topic area, or phenomenon of interest. They are appropriate for summarizing existing research, for identifying gaps in the existing literature, as well as for providing background for positioning new research.

Selection of the articles

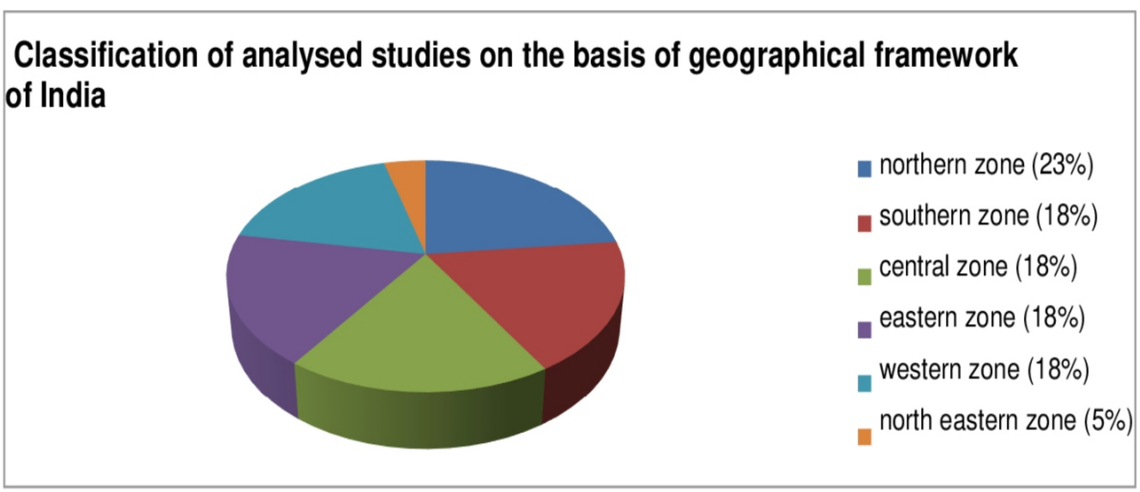
The initial step of Systematic Literature Review is to search the relevant studies from the databases and then select the papers and articles related to the purpose of the study. Prominent studies related to skill training in India have been included in present research paper.

After checking the paper's relevance, a total of 22 studies have been included by searching credible online databases like Google Scholar, Emerald, Research Gate, DOAJ, Sage etc.

Analysis of the literature between 2010 and 2020 has been conducted in the present study and only research papers and articles have been included while governmental reports and thesis have been excluded.

Classification of the study

Classification of the studies related to skill development has been done on the basis of geographical framework of India to conduct the descriptive analysis. Different states and union territories of India has been categorized into six zones namely northern zone, southern zone, western zone, eastern zone, north eastern zone and central zone. The results indicate that the studies are not confined to a particular state or zone of the country. 5 out of 22 studies, which make a share of 23%, were conducted in northern zone of the India. Southern, central, eastern and western zone each hold a share of 18% and north eastern zone can be placed at last position as only 5% i.e. 1 study out of all 22 studies, was conducted in this zone.



3. Thematic analysis of the studies

Thematic analysis of the total of 22 selected studies related to skill training in India covering six different zones of the country is presented in the following table.

Table 1: Thematic table of the studies related to skill training in India.

Name of the author and year of study	Title of the study	Geographical zone of the study and its corresponding state	Primary objectives of the study	Research methodology adopted in the study
1.Agrawal and Thakur (2019)	Impact of Pradhan Mantri Kaushal Vikas Yojana on the Productivity of Youth in Gwalior Region, India	Central Zone-Gwalior, Madhya Pradesh	To assess the Impact of the PMKVY in improving the productivity of youth in Gwalior region.	Primary data collected from 1197 trainees who had acquired training from centers of PMKVY using self structured questionnaires
2.Chakravorty and Bedi (2019)	Skills Training and Employment Outcomes in Rural Bihar	Eastern Zone-Bihar	To analyse the impact of training sponsored by Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) on respondents	Empirical approach used to collect data from participants and non participants with a total sample size of 526 respondents.
3.Gautam et al. (2019)	Study of Evaluating the Skill Development Programme: with special reference to Rewa	Central Zone-Rewa, Madhya Pradesh	to assess the progress and performance of Skill Development programme in Rewa District of Madhya Pradesh	Primary data have been collected through structured questionnaire from selected sample beneficiaries who have undergone training under skill development program in rewa..
4. Jamal and Khurshid (2019)	Policy initiatives of government for skill development and entrepreneurship in jharkhand	Eastern Zone-Jharkhand	To study the policy initiatives taken by the Jharkhand Government to promote Skill development and entrepreneurship.	Secondary data collected from various government reports and websites.
5. Koops and Pilz (2019)	Skills Development in the Informal Economy: A Case Study from South India	Southern Zone-Tamil Nadu	To analyse the learning processes of a group of small-scale mechanics in two semi-urban regions in South India.	Case study conducted using in-depth qualitative interviews with 10 small mechanics

6. Lalitha (2019)	Skill training for rural youth under ddu-gky: A case study of nac in telangana	Southern Zone-Telangana	To study the impact of training on rural youth under DDUGKY at National Academy of Construction (NAC), Telangana	Case study of NAC and primary data collected from 430 respondents selected through simple random sampling using questionnaires and structured interviews.
7. Reshmi and Methew (2019)	Impact of skill development programs on rural development with reference to 'kudumbashree' in malabar districts of kerala	Southern Zone-Kerala	To discuss the role of the Kudumbashree in rural development and to study the impact of skill development program on rural development	Primary data collected from Kudumbashree workers, skilled youth and mission management employees by interview schedule and direct observation and by informal conversations.
8. Dewangan Rashmi (2018)	Role of Skill Development Programmes in Development of Rural Youth in Durg District of Chhattisgarh	Central Zone-Chattisgarh	To examine the role of skill development programmes in development of rural youth	Primary data collected from 95 respondents who had already received any training under the various skill development courses run by the government.
9. Kaur and Dogra (2018)	Skill Development in Punjab: A Critique Study of Initiative, Challenges and Way Forward	Northern zone-Punjab	To conduct the research on working of skill development in Punjab To explore the challenges faced by the heads of training centers.	Primary data collected from skill training centers of Amritsar, Ludhiana and Jalandhar Secondary sources
10. Singh Yogendra (2018)	Economic Welfare and Development through Skill India Programme: A Study of Success Factors and Challenges	Northern Zone-Allahabad (now Prayagraj),	To know the level of awareness about skill development programme and problems of self employment	Primary data collected from 30 respondents using questionnaire
11. Kahlon Arvinder (2017)	Skill development mission in punjab key chanllenges, hinderances and possible solutions	Northern Zone-Punjab	To study the challenges and problems faced by Skill Development Mission in Punjab. To study all possible solutions to make Skill Development mission in Punjab a success	Based on secondary sources collected from various journals, books, websites, reports related to State of Punjab

12. Hazarika Sanjeeb (2016)	Skill Development for Rural Entrepreneurship: A study on State Institute of Rural Development (SIRD), Assam	North Eastern Zone- Assam	To examine different skill development facilities provided by SIRD for rural entrepreneurship. To study the motivational role of training and its effect on starting an enterprises in rural areas.	Primary data collected from 40 rural entrepreneurs (men and women) who have started their enterprise after receiving training from State institute of Rural Development (SIRD), Assam.
13. Hukampal and Bhowmick (2016)	Innovation Network for Entrepreneurship Development in Rural Indian Context: Exploratory Factor Analysis	Western Zone- Gujarat	To identify variables of innovation network and to conceptualize innovation network in the rural context	The study has been executed through a field survey of the rural entrepreneurs, through interviews and closed ended questionnaires in rural regions of Gujarat in India.
14. Shirur Sangappa (2016)	Non Governmental Organizations and Skill Development of Women in Karnataka: A Case Study of Dharwad District	Southern Zone- Dharwad district, Karnataka	To study the role of NGOs and capacity building of women through NGOs To analyze the impact of skill development on occupation, income and savings of the beneficiaries	Primary data collected from 100 women beneficiaries through multi stage purposive random sampling design
15. Chavda and Trivedi (2015)	Impact of Age on Skills Development in Different Groups of Students	Western Zone- Gujarat (Ahmedabad)	To study the impact of age and gender on skills development in different groups of students	Primary data from 150 students selected randomly from the schools and colleges of Ahmedabad city
16. Mishra Mukti (2015)	Vertically integrated skill development and vocational training for socioeconomically marginalised youth: The experience at Gram Tarang and Centurion University, India	Eastern Zone- Orissa	To describes Centurion's vision, operational approach, and the underlying beliefs that guide its innovative thinking, based on its years of working in some of India's most marginalised and underdeveloped regions.	Case study of Gram Tarang and Centurian University, India.
17. Pilz and Wilmshofer (2015)	Formal, nonformal, and informal learning in rural India: The case of fishing families on the Chilika Lagoon	Eastern Zone- Orissa	To analyse the education and opportunities for skill development available to fishing families of rural region of Orissa	Primary data collected through group interviews of fishing families, individual interviews of vocational school students and expert interviews of educational professionals

18. Rao Kajal (2015)	From Silence To Soft skills through Life Skills : A case study of BPL Students at DDU – GKY Central Government Sponsored BPO Training Center, Anand, Gujarat	Western Zone-Gujarat	To examines how the teacher discussed Soft Skills through Life Skills to the youth of BPL of Anand district under DDU-GKY project in association with Mission Mangalam in a BPO Training Centre at DJMIT Campus, Mogar Anand, Gujarat, India.	Case study of three batches of 90 trainees placed at BPO training center at DJMIT Campus, Mogar Anand, Gujarat.
19. Sona Vikas (2015)	A Turnaround Specialist on the Job: The Case of MPCON	Central Zone-Indore, Madhya Pradesh	To study the turnaround strategies adopted by the company MPCON with emphasis on CSR, skill development, personality development, corporate training etc.	Case study of professionally managed technical consultancy organization MPCON
20. Venkatesh et al. (2015)	Evaluation of Skill Development Programmes: A Project Management Perspective	Northern Zone-Jammu and Kashmir	to analyze dropouts' data and evaluate the existing model of a skill training, development and placement programme of Project Himayat TM	Case study conducted from the secondary data collected from public domains and parent organization IL&FS Skills
21. Riaz et al. (2014)	Impact Assessment of Skill Development Trainings Rendered by Punjab Rural Support Programme(PRSP) for Empowering Rural Women	Northern Zone-Punjab	To assess the usefulness, strength, weaknesses and participants recommendations for the Skill Development Trainings (SDT) rendered by PRSP for empowering rural women.	Primary data collected from a total sample size of 410 respondents was selected through a multistage simple random sampling technique.
22.Yadav Ramsagar (2014)	Skill development initiatives in india : Challenges and strategies with reference to Vocational training initiatives in maharashtra	Western Zone-Maharashtra	To understand the scope and the challenges of national skill development policy To understand vocational training initiatives in Maharashtra	Study was based on secondary sources of data which include books, journals, Internet etc

Section: 4. Results of each analysed study

The following tables present the results of each analysed study related to skill training in India which are classified on the basis of six different zones (geographical framework) of India.

Table 2: RESULTS OF THE STUDIES CONDUCTED IN NORTHERN ZONE OF INDIA.

Northern Zone of India includes the states of Punjab, Jammu and Kashmir, Uttar Pradesh, Haryana, Rajastan, Himachal Pradesh and Uttrakhand. Following table presents the review of 5 studies related to this zone.

Sr. no	Author	Results of each analysed study
1	Kaur and Dogra	The results shows that government is spending very less amount on advertisement and awareness programmes and these programmes are not taken seriously by students and their parents, lack of infrastructure facilities, poor curriculum, delay in payment by state government, high dropout rate among students, lack of placement opportunities were some of the major challenges as per the opinion of center heads.
2.	Singh Yogendra	The results shows that more than 50% of the respondents were aware of the Skill India Campaign and majority had undergone the skill development training under different areas and benefited in their overall development. It was also concluded that many respondents get motivated through Skill India Campaign and have encouraged others for self-employment.
3.	Venkatesh et al	Project Himayat, in its form is contributing to the growth of the society. It has become a yardstick for the self-help projects in the country. With certain inputs and changes in the system, the program can achieve its aim of creating ample amount of skill based jobs in the country, which is absolutely imperative to fully utilize the demographic dividend that India are blessed with.
4.	Riaz et al.	It was concluded in the study that though the SDT contributed a lot in empowering women still their impact on income generation is at satisfactory level. Need oriented trainings, opportunities of employment and provision of small enterprise is needed for women empowerment.
5.	Kahlon Arvinder	Skill Development Mission in Punjab is a successful Government venture which has definitely helped youth to get employment. It is a strong help taken by the Government of India towards making the State prosperous. There is a great need of such ventures which will help in uplifting the standard of living and attaining financial independence among youth.

Table 2 presents the review of 5 studies and proposes the results of the studies conducted in the northern zone of India. Most of the studies reviewed above belonged to Punjab state and majority of the studies were based on primary sources of data. It was observed that the results of all the above studies were positive. It was revealed that skill development programmes in Punjab had significant impact on employment and income of the beneficiaries while in case of Uttar Pradesh, a study conducted in Allahabad concluded that respondents got motivated for employment through Skill India Campaign which also shows a positive picture of skill training. It was also recommended in the above reviewed studies that by overcoming the challenges and by implementing some changes in the system, ample amount of skill based jobs can be created in the country.

Table 3: RESULTS OF THE STUDIES CONDUCTED IN SOUTHERN ZONE OF INDIA

Southern Zone of India includes the states of Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and Telangana. Following table presents the review of 4 studies related to this zone.

Sr. no	Author	Results of each analysed study
1.	Lalitha	The results indicated that before training, 30% and 20% of the candidates were seasonal and wage employees respectively and 35% of the candidates were unemployed and after acquiring training 92% of the candidates were placed under DDU-GKY, 1% were seasonally employed, 2% were carrying their own business and 5% of the candidates were still continuing their studies. Therefore it was concluded in the study that the skill training was proved to be very helpful for the rural youth in getting job and living a better livelihood.
2.	Koops and Pilz	The study revealed that though the job satisfaction levels were high and a broad skill set is existent, but the promotion of relevant skills and the provision of better social protection could considerably improve the generation of income for the mechanics. The main deficiencies include the low relevance of non-formal learning due to a lack of training supply and the corresponding prevalence of informal apprenticeships and informal learning patterns. It was also found that The learning is typically not structured, depends on families and the supervisors and problems were not targeted proactively.
3.	Reshmi and Mathew	It can be concluded that Kudumbashree has made a massive responsibility in rural development through skill development programs. The participation of rural poor youth in the labour market has ensured through this DDU GKY skill development program and Kudumbashree. It can be seen that the beneficiaries of these two programs have benefited socially as well as economically.
4.	Shirur Sangappa	It was found in the study that 22 percent of the respondents were house wives before joining into NGOs activities, but after joining into NGOs activities it reduced to 11 percent and also before joining NGOs activities 32 percent of the respondents was unemployed but after the period it had been tremendously decreased to zero percent. It was also revealed that the monthly income of the respondents increased after the period of skill development programmes of NGOs.

Table 3 shows the results of the studies conducted in the southern zone of India. Studies related to this are not confined to a particular state but covers almost every state of the south zone. Majority (80%) of the studies reviewed above were based on primary sources of data. The overall result of the studies reviewed above revealed that skill training programmes have proved to be very helpful to the beneficiaries in attaining employment and better standard of living. These programmes have benefitted them both economically and socially. In addition to these benefits, there are also some deficiencies and challenges in skill development programmes with are needed to be addressed as soon as possible.

Table 4: RESULTS OF THE STUDIES CONDUCTED IN CENTRAL ZONE OF INDIA.

Central Zone of India includes the states of Madhya Pradesh and Chattisgarh. Following table presents the review of 4 studies related to this zone.

Sr. no	Author	Results of each analysed study
1.	Agrawal Thakur	It was found in the study that there was significant impact of training under PMKVY scheme on productivity and performance of the trainees as it proved to be helpful in earning them livelihood and solving their unemployment problem.
2.	Sona Vikas	It was found in the study that the company anticipated some challenges like debt recovery, maintaining steady cash flow, developing a system for quick placements of candidates under skill development programmes, improvement in quality of deliverables and identifying good implementing partners. The company may have some smooth sailing as there are new opportunities which he would like to capitalize on, like the government focus on skill development and the CSR provisions under the Companies Act, 2013.
3.	Gautam et al.	The overall observation from the impact of the skill development on self employment and wage employment is that some trades namely Tailoring, computer, CCTV, Carpenter and Embroidery contributing more for self-employment. Traditional tricks are self-employment oriented as compared to modern trades. After successful completion of skill development program they can do self- employment or small scale business and employing both hired and family labours. Thus, modern trades are more income generating and traditional trades generate more of self-employment.
4.	Dewangun Rashmi	The result of the study revealed that majority of the respondents were aware about skill development courses and their main aim to join the training course was to get the employment. Trainees experienced a positive change in life and soft skills. It was also found that unemployment rate among the rural youth has decreased through these skill development efforts of government.

Table 4 shows the results of the studies conducted in central zone of India. Majority (75%) of the studies belonged to the state of Madhya Pradesh and was based on primary sources of data. The overall result of studies conducted in central zone revealed that the skill training programmes had a significant impact on the employment and self employment of the trainees under study which ultimately helped them to earn a better livelihood and standard of living.

Table 5: RESULTS OF THE STUDIES CONDUCTED IN EASTERN ZONE OF INDIA.

Eastern Zone of India includes the states of Bihar, Jharkhand, Orissa and West Begal. Following table presents the review of 4 studies related to this zone.

Sr. no	Author	Results of each analysed study
1.	Jamal and Khurshid	It was found in the study that although skills are integral part of employment leading to economic growth but it should be brought in proper synergy with entrepreneurship. It was also revealed that the major challenge faced in the country to implement skill development programme is the perception of people and society towards the skilling and another important factor that is responsible for this stigma is that most of the vocational training programmes in India are not aligned to the requirements of the industry, as a result a situation exist where unemployment continues to coexist with lack of requisite number of skilled people at functional level
2.	Mishra Mukti	The study revealed that the sector of skill development and vocational education requires a paradigm shift, from a static framework to one that is dynamic and constantly adapting to meet industry and social demands. The study quoted the case of Centurian University and Gram Tarang (CUGT) which showed how less resources can be handled through inclusive education and industrial participation

3.	Pilz and Wilmshofer	The study revealed that formal education is just fundamental in the region considered for study. Even the few young people who move on to a vocationally oriented ITI/ITC also endure inadequate equipment and under qualified teaching staff in those institutions. Secondly, Unlike informal learning from family members, non formal education involves people outside the family helping to extend learners' skills and widen their horizons. It was also found that while informal learning for girls is largely restricted to domestic skills, it is central for boys from fishing families. The study recommended the importance of non formal training among the young people due to its attribute of being tailor made, satisfying vivid needs and supply driven.
4.	Chakravorty and Bedi	It was revealed in the study that 42% of the graduates were placed immediately after the training, which translates into a 29% percentage point impact of training on employment. But within 2–6 months after training, the impact of the scheme on employment was statistically not different from zero. About a third of the placed graduates left their jobs due to caste discrimination and a third exited as the salaries offered were too low as compared to their expected living costs. While employment effects were zero, the training did help graduates move from agricultural to non-agricultural positions. Therefore this study did not show an optimistic picture of the employment effect of the scheme.

Table 5 shows the results of the studies related to eastern zone of the country. 2 out of 4 studies belonged to Orissa state, 1 to Bihar and 1 to the state of Jhark hand. According to the above reviewed studies, most of the vocational and skill training programmes are not aligned to the requirements of the industry therefore there is a need of paradigm shift in skill development and vocational education so as to meet the industry and social demands of the economy. Also the study which was conducted in Bihar did not show an optimistic picture of the employment effect of the scheme.

Table 6: RESULTS OF THE STUDIES CONDUCTED IN WESTERN ZONE OF INDIA

Western Zone of India includes the states of Goa, Gujarat and Maharashtra. Following table presents the review of 4 studies related to this zone.

Sr. no	Author	Results of each analysed study
1.	Hukampal and Bhowmick	The study asserted the criteria such as skill development, information accessibility, production enhancements as well as entrepreneurial development were vital which are required for the notion of innovation network in rural areas.
2.	Rao Kajal	The study highlighted the importance of soft skills training and how it helps to enhance the employability of students and also portrayed how the teacher discussed Soft Skills through Life Skills to the silent shy and simple village girls and boys of Below Poverty Line of Anand district. The study revealed that it was very challenging for the trainers to train the boys and girls of BPL village and these difficulties were sorted with the support of life skills and other supportive activities like informal interactions, weekly meetings with families, regular evaluation and appreciation etc. It was revealed in the study all the trainees who were the target groups for this research have been placed with good pay scale after receiving training. It was suggested in the study that Indian education system needs to use advanced tools to provide soft skill training and interaction between academics and industry.
3.	Chavda and Trivedi	The results of the study indicated that students of 18-20 years of age were better in skill development than the students of 11-13 years and 14-17 years of age which shows that age and maturity had significant difference in skill development. Secondly, the study revealed that development of skills is better amongst girls as compared to boys in all age groups.
4.	Yadav Ramsagar	It was found in the study that the government of Maharashtra has put in place various programs and policies like State Executive Committee for Skill Development, Core Group for Skill Development, Regional Level Committees, District Level Committees etc. to undertake the various skill development initiatives in Maharashtra. It was also found in the study that lack of seating capacity, overlapping authority, lack of industrial linkages, no adequate industrial participation etc were some of the major challenges of vocational training programmers in Maharashtra.

Table 6 shows the results of the studies related to the western zone of India. 3 out of 4 studies were conducted in the state of Gujarat and 1 in Maharashtra. The overall result of above reviewed studies revealed that after receiving training, either from the training centers or as a part of Corporate Social Responsibility (CSR), there is a positive change in the respondents under study. It was also revealed the age and gender has significant difference in skill development.

Table 7: RESULTS OF THE STUDY CONDUCTED IN NORTH EASTERN ZONE OF INDIA

North Eastern Zone of India includes the states of Assam Arunachal Pradesh, Mizoram, Manipur, T ripura, Meghalaya and Nagaland. Following table presents the review of 1 study related to this zone.

Sr. no	Author	Results of each analysed study
1.	Hazarika Sanjeeb	The study revealed that various facilities like growth centers, common facility centers, training programmes, motivational infrastructure, resource center for IT and skill development etc were provided by SIRD. It was also observed in the study that there was significant increase in employment generation, standard of living, leadership skills, and technical skills, availability of resources, professional development and women empowerment of the respondents under study after receiving the training provided by the institute.

Table 7 shows the results of the study related to north eastern zone of India. Out of total 22 reviewed studies, only 1 study was conducted in this zone. The study belonged to Assam state of India and was based on primary data collected from entrepreneurs. The study revealed that there is a positive impact on the entrepreneurs under study after receiving skill training.

Section: 5. Conclusion and recommendations

The current study has carried out a systematic literature review on skill development research in India conducted from 2010 to 2020. The objective of the study is to classify and analyse the related studies on the basis of geographical framework of India. it is observed in the present research that studies reviewed are not confined to a particular sate or zone of India. it is noticed that almost half of the studies belong to northern and southern zone out of all six zones and lowest number of studies are carried out in north eastern zone of India. To add to the observation, it is worth mentioning here that majority (73%) of the studies was based on primary sources and first hand information has been collected to analyse the progress and performance of skill trainings.

To conclude, skill and vocational training programmes have shown a highly positive impact on the performance, employment and livelihood of trainees in northern, southern, western, central and north eastern zone. While studies conducted in eastern zone does not present the optimistic picture of skill training system. The present research also highlighted the fact that there are various challenges and deficiencies hindering the skill system in India. Therefore there is a need to have a holistic solution to address these challenges in order to achieve the ambitious skilling targets.

Based on above discussions, it is recommended to align the skill and vocational training to industrial requirements and social demands in order to narrow down the skill gap prevalent in the country. Also there is a need of more CSR spending by corporate to improve skill development in society's younger workforce.

References

- Agrawal, M., & Thakur, K. S. Impact of Pradhan Mantri Kaushal Vikas Yojana on the Productivity of Youth in Gwalior Region, India.
- Cabral, C., & Dhar, R. L. (2019). Skill development research in India: a systematic literature review and future research agenda. *Benchmarking: An International Journal*.
- Chakravorty, B., & Bedi, A. S. (2019). Skills Training and Employment Outcomes in Rural Bihar. *The Indian Journal of Labour Economics*, *62*(2), 173-199.
- Chavda, M. D., & Trivedi, B. S. (2015). Impact of Age on Skills Development in Different Groups of Students. *International Journal of Information and Education Technology*, *5*(1), 55.
- Dewangan, R. (2015). Role of Skill Development Programmes in Development of Rural Youth in Durg District of Chhattisgarh.

- Dikert, K., Paasivaara, M., & Lassenius, C. (2016). Challenges and success factors for large-scale agile transformations: A systematic literature review. *Journal of Systems and Software*, *119*, 87-108.
- Gautam, K., R.P.Gupta, & Tiwari, S. (2019). Study of Evaluating the Skill Development Programme: with special reference to Rewa. *International Research Journal of Commerce Arts and Science , 10* (12).
- Hakami, N., White, S., & Chakaveh, S. (2017). Motivational factors that influence the use of MOOCs: Learners' perspectives. In *Proceedings of the 9th International Conference on Computer Supported Education (CSEDU 2017)* (pp. 323-331).
- Hazarika, S. (2016). Skill Development for Rural Entrepreneurship: A study on State Institute of Rural Development (SIRD), Assam. *International Journal of Research and Analytical Reviews*, *3*(3), 61-66.
- Hukampal, S. S., & Bhowmick, B. (2016). Innovation network for entrepreneurship development in rural Indian context: exploratory factor analysis. *International Journal of Innovation and Technology Management*, *13*(04), 1650016.
- Jamal, N., & Khurshid, I. (2019). POLICY INITIATIVES OF GOVERNMENT FOR SKILL DEVELOPMENT AND ENTREPRENEURSHIP IN JHARKHAND. *International Educational Applied Scientific Research Journal*, *4*(01).
- Junior, M. L., & Filho, M. G. (2012). Production planning and control for remanufacturing: literature review and analysis. *Production Planning & Control*, *23*(6), 419-435.
- Kahlon, A. K. (2017). SKILL DEVELOPMENT MISSION IN PUNJAB KEY
- CHANLLENGES, HINDERANCES AND POSSIBLE SOLUTIONS. *International conference on latest trends in Engineering, Science, Humanities and Management.*
- Kaur, J., & Dogra, M. (2018). Skill Development in Punjab: A Critique Study of Initiative, Challenges and Way Forward. *Amity J. Entrepreneurship*, 24-34.
- Koops, B., & Pilz, M. (2019). Skills Development in the Informal Economy: A Case study from South India. *Indian Journal of Industrial Relations*, *54*(4).
- Lalitha, V. (2019). SKILL TRAINING FOR RURAL YOUTH UNDER DDU-GKY:. *International Journal of Advanced Research in Commerce, Management & Social Science 2* (2).
- Mishra, M. (2014). Vertically integrated skill development and vocational training for socioeconomically marginalised youth: The experience at Gram Tarang and Centurion University, India. *Prospects*, *44*(2), 297-316.
- Pilz, M., & Wilmshöfer, S. (2015). Formal, nonformal, and informal learning in rural India: The case of fishing families on the Chilika Lagoon. *Prospects*, *45*(2), 231-243.
- Ramsagar, Y. skill development initiatives in India: challenges and strategies with reference to vocational training initiatives in Maharashtra. *Tactful Management Research Journal*, *136*.

- Rao, K. B. (2015). From Silence To Soft skills through Life Skills: A case study of BPL Students at DDU–GKY Central Government Sponsored BPO Training Center, Anand, Gujarat. *The Global Journal of English Studies September 2015 Vol. 1, Issue 2 ISSN: 2395 4795*, 58.

- Reshmi, V. C., & Mathew, R. V. IMPACT OF SKILL DEVELOPMENT PROGRAMS ON RURAL DEVELOPMENT WITH REFERENCE TO 'KUDUMBASHREE'IN MALABARDISTRICTS OF KERALA. *Recent Innovations in*, 199.

- Riaz, A., Siddique, A., Riaz, F., & Malik, N. (2014). Impact Assessment of Skill Development Trainings Rendered by Punjab Rural Support Programme for Empowering Rural Women. *Academic Journal of Interdisciplinary Studies*, *3*(4), 27.

- Shirur, S. Non Governmental Organizations and Skill Development of Women in Karnataka: A Case Study of Dharwad District. *SKILL INDIA AND DEVELOPMENT: EMERGING DEBATES*, 137.

- Singh, Y. N. (2018). Economic Welfare and Development through Skill India Programme:A Study of Success Factors and Challenges. *UPUEA Economic Journal , 14*.

- Vikas, S. (2015). A turnaround specialist on the job: the case of MPCON. *Global Business Review*, *16*(4), 719-733.

- Venkatesh, A., & Kiran, A. S. (2015). Evaluation of Skill Development Programmes:A Project Management Perspective. *International Journal of Humanities and Management Sciences , 3* (5).

IMPACT OF CORONA VIRUS ON INDIAN RAILWAYS: AN ANALYSIS

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Abstract
Indian railways is playing major role in the country by providing its valuable services during the phase of Corona Virus. Where whole nation is struggling against this virus, Indian railway is transporting essential commodities across the whole country through 9000 freight trains. It has cancelled its all passenger trains till the next orders of government. This resulted into huge loss for Indian Railways. Despite of losses it is also helping the nation by producing face masks and hand sanitizer. It has converted various trains into isolation wards and also offering its trains for quarantine purpose. Through this paper an effort has been done to study the various decisions taken by relevant bodies of government & Indian railways during this lockdown for safety of nation. It was found that after the declaration of lockdown and curfew in whole country, it has taken many preventive measures for the safety of passengers. These measures included suspension of passenger trains, introduction of Shramik trains, conversion coaches of trains into isolation wards, manufacturing of PPE kits, Hand sanitizer & face masks.
Keywords- COVID-19, Indian railways, Isolation, freight trains etc.

Introduction

Corona virus is current issue that many countries of the world are facing. It is also known as COVID-19. It was emerged in Wuhan; a city of China at the end of 2019 (Munster et al. 2020). Reason behind the virus is still unknown for the whole world. It was not scientifically proven that it was emerged in a laboratory of China or through some animal. Researchers of all countries are working on the discovery of medicine and vaccination to cure the infected people. This virus has four stages. First stage is introduction of virus among people and this stage was occurred in China. In India it was occurred because of imported people from many countries. Second stage is related to local transmission of virus by getting in touch with infected people. Third stage is related to community transmission where number of people will be affected just because of spread of virus in air and last stage is uncontrollable for any country which leads to multiple deaths. Currently India is in the second stage according to Indian Council of Medical Research (ICMR 2020). If it will not be controlled soon then India will also enter in third stage like America, Italy, Spain & China & many other countries. Social distancing is the only way to avoid this virus. China has declared lockdown for 90 days and that's why now their cases started declining. In India honorable Prime Minister Narendra Modi has taken his first step against this virus by declaring Janta curfew on 22 March, 2020. On the same day many states has declared lockdown for the safety of their states. Further curfew and Lockdown was also imposed by government and people were forced to stay at their homes. It was the only way to avoid social gathering and maintaining social distance. Although many services were stopped in the sake of safety of people but essential service providers are still providing their services. It includes Medical staff, police officers, cleaning staff and Indian railways etc. World health organization (WHO) praised the work of India as they have taken precautionary steps at right time and that resulted into very less number of infected people and deaths as compared to other developed nations.

Review Of Literature

Patel et al. (2020) conducted a study on role of Indian railways during Covid-19. From the collected data it was revealed that during world health emergency of Covid-19, Indian Railways and its health services come forward put their best efforts for the safety of people of our country. When all