Factors Influencing Rural Non-Farm Employment And Quality of Employment

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ABSTRACT

In the context of developing or less developed countries, an analysis of the rural labour market and, as a result, patterns of means of subsistence has been essential in order to comprehend the process of development in these countries. Agriculture continues to be the primary source of employment in many nations, as the vast majority of the population lives in rural areas. However, because there are now more people working in rural regions, relying solely on agriculture to address the issue of unemployment in these places is not a viable solution. As a result, the rural non-farm sector has evolved into a significant contributor to the employment market. Diversification in rural employment has gained substantial relevance in India during the past two decades, and has been examined by a number of scholars. The studies based on secondary data demonstrate a gradual drop in the rural economy's reliance on agriculture as a primary source of income, as well as a minor degree of economic diversification. Analysis of the quantitative relevance of the non-agricultural sector in the development process is crucial. However, the presence of a considerable proportion of the poor in rural areas raises questions regarding the kind and conditions of the employment in which people currently engage and the wages they earn. The diversification can be determined by analysing secondary data. However, existing secondary data does not adequately explain the causes of this diversification, as it varies from place to region. It also fails to investigate the reasons behind the disparities in regional poverty rates. However, secondary data do not contain information on earnings earned by non-agricultural sectors. These data estimate the potential of several non-agricultural sectors to provide rural workers with steady employment and reduce poverty. As a result, a micro-level study is carried out in order to formulate certain policy prescriptions. The current study makes an attempt to analyse the nature of participation of various categories of households in non-farm employment and the level of earnings accruing there from by using micro-level data. This study also examines the sectoral composition of rural non-farm sector and the main

determinants of rural households' access to various types of activities. Additionally, this study attempts to measure the quality of employment by using the information at the individual worker level and comparing the incidence of poverty. The current study makes an attempt to address three fundamental issues by utilising data collected at the micro level. Initially, the research variables are identified through a review of the literature and these initial variables are tested with the help of a reliability and validity study. The final selected variables are then used to develop the structured questionnaire. This questionnaire is then administered to collect the relevant information about the study objectives from the target respondents of two districts. The data collected through this process are then processed, cleaned, and incorporated into SPSS for further analysis. Respondents are coming from two study districts. A t-test is applied to understand whether any significant difference exists among the target respondents of these two districts. The study also tried to identify the quality of non-farm employment to ascertain the future prospects of this sector. Lastly, the thesis comes with different recommendations so that policymakers are able to implement the same for future growth. One of the important recommendations is to create skill-based training for non-farm workers which helps to produce the products in an effective manner. Government intervention is also important as the creation of non-farm activities will help to reduce the movement from one place to other. As a result of which the socio-economic imbalance may be addressed.

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LIST OF ABBREVIATIONS

Acronym	Full form
NSSO	National Sample Survey Organization
NFE	Non-Farm Employment
US	Usual Status
NDP	Net Domestic Product
RNFE	Rural Non-Farm Employment
SC	Schedule Caste
OBC	Other Backward Class
ILO	International Labour Organization
WFPR	Workforce Participation Rate
ANOVA	Analysis of Variance
CHARLS	Chinese Health and Retirement Longitudinal Study
AFS	Agri-Food System
CES	Consumer Expenditure Survey
NSDP	Net State Inland Product
MPCE	Monthly Per Capita Expenditure
NREGA	National Rural Job Guarantee Act
LDCs	Less Developed Counties
SLF	Sustainable Living Fund

CHAPTER - I
INTRODUCTION

CHAPTER - I

INTRODUCTION

1. Introduction

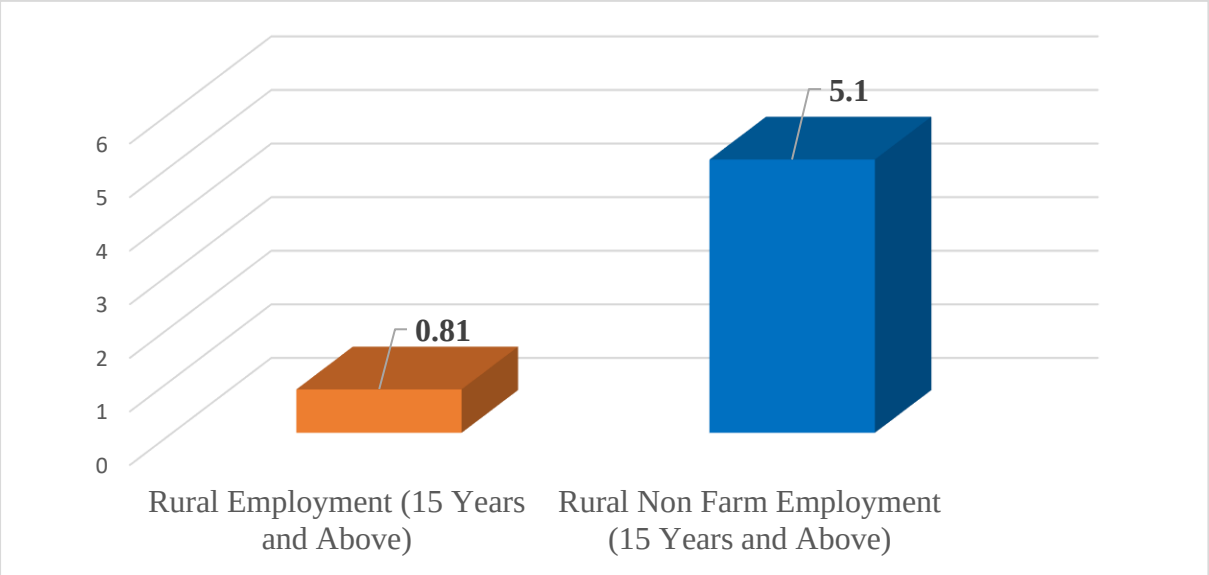
Every person in a society looks forward to efficient, decent and sustainable (long-term) employment opportunities. One of today's major challenges is to provide their rising workforce with quality employment and to capture the benefits of a generational dividend. Compared to the unparalleled economic growth witnessed over the past decade, the issue of a shortage of productive and decent job prospects has become even clearer. The average annual growth rate of GDP (GDP) during the period 1999- 2000 to 2011-2012 was 7.4% (GoI, 2013). However, this high, unprecedented rate of economic growth did not have a significant effect, especially in rural areas, on generating productive and decent employment opportunities. The development trend has seen a transformation from a largely agrarian to an urban economy for the majority of developing countries. New industries are eventually developing and the proportion of people relying primarily on agriculture is decreasing – the speed of which depends on different factors. Economic diversification often differs greatly between rural and urban areas. In rural economies of developing countries, many empirical studies showed that non-farm activities are gaining importance (Hazell and Haggblade, 1993; Sen, 1996; Lanjouw, 1999).In Africa, living conditions are increasingly diversified to non-farm incoming sources, with a minority in many countries (Ellis, 2000; Francis, 2000; Brygeson, 2002) reflecting the share of households that rely solely on agriculture. The scope of non-farm activities was enormous and relied mainly on "distinct agricultural histories and in situ farm commodity production levels" (Bryceson, 2002). To understand their trends, it was important to examine the rural labor market and thus their living conditions in the context of developing or less-developed countries. Most of these countries also have rural communities and the main source of employment is agriculture. However, agriculture alone would not solve the unemployment

problem in rural areas because of the growing number of rural workers. Therefore, the rural non-farm sector has become a significant source of employment. During the growth process, the value of the non-farm sector as a source of jobs is well known. Rural non-farm operations are part of a diversified livelihood portfolio for the majority of rural people in developing economies. However, the proportion of non-farm incomes in poor countries varies greatly. Regional shares are, on average, higher in rural regions in Africa (42%) and Latin America (40%) than Asia (32%) than in other regions in Latin America (40%) (Reardon, 1997). There are also evidences that the diversification of sales may have improved over the last few years. For example, the countryside of Sub-Saharan Africa (Bryceson,1996 and 1997) has been constantly decreasing in agrarian terms, increasingly dependent on non-farm sources of income. The rate of income growth produced by rural non-farming was also important in rapidly expanding East Asian countries, including South Korea. This industry is absorbing rising numbers of manpower in surplus working countries in South Asia, such as India and China.

India was no exception to the process of systemic changes towards increased non-agricultural reliance and agriculture's contribution to GDP over the years has decreased substantially (currently at 14 percent of GDP as per Economic Survey Report, 2021 - 22).This decline in GDP share was not associated with the concomitant decrease in farm work (with almost half of the workforce still depending on agriculture for livelihood).The Kaldor-Kuznet economy's long-term dynamics in the Indian context were therefore not fully realized (Kaldor, 1967; Kuznets, 1965).But in India, while agriculture has remained a key to rural subsistence, rural households are increasingly engaged in diversified economic activities. Furthermore, the capacity of agricultural sector to ensure sustainability (especially for youth) is growing with the fragmentation of land and increased demand for land for non-agricultural purposes.

National studies have shown that the nonfarm sector in India is becoming increasingly important. Lanjouw and Shariff (2004) reported on the basis of a nationally representative rural household survey that an average of one-third of household income was non-farm income. Besides studies at state and village levels based on National Specimen Survey Organization (NSSO) job and unemployment surveys, various studies also show that non-farm work in rural economy is increasingly of significance. In many parts of rural India, small businesses (like the stall for tea, bike repairs) as well as cane crushers, rice mills and transport operators grew (Wiser and Wiser, 1971; Epstein, 1973; Srinivas, 1976). Basant (1993) recorded that almost three fourths of the sample houses reported more than one source of income based on a primary survey in Gujarat. Other studies have shown cases in which persons (mainly males) specialize in professions such as band play, dull pipes and building related tasks (Saith and Tankha, 1992; Saha, 2009). Therefore, the disparity between rural jobseekers and work prospects in agriculture expanded while agriculture remained a major pillar in the rural economies. The non-farm sector in rural India is steadily becoming a source of increasingly significant subsistence. More and more rural India people are diversifying their income streams and the non-agricultural sector has played a key role in this rural diversification process. If we assume the long-term work growth of adults (15 years and above) (principal position, which involves at least half of the year), then we can note that total rural jobs rose by less than an average of one per cent per year in the period 1999-2000 and 2011-12, while non-farm employment in rural areas increased significantly in comparison to farm sector employment. The figure 1.1 can throw some lights on this.

Figure 1.1. Average Annual Growth Rate of Rural Employment and Rural Non-Farm Employment (2001 and 2011 Census Data – In Percentage)



Source: Census Data, 2001 and 2011

The figure shows that the average annual growth of rural employment during the two-census period was only 0.81% while the growth of rural non – farm employment was 5.1%. This growth is significant in the sense that, it gives an indication that rural people are no more depending on agriculture alone. Even if they are engaged in agricultural income generating activities but a handful of them are exploring the non – farm employment opportunities. This trend will further grow if a greater number of opportunities are coming up in the non – farm sector. So, this is quite advantageous for the people of rural India.

Studies have addressed the flow from agriculture to non-agricultural by means of output and consumption linkages, but the agricultural and non-agricultural sectors may also be separately growing without any substantial interrelationship between them. Regional features also play a key role in understanding rural growth and growth in non-farm jobs. Researchers who argued that agriculture was the main force for diversification in rural areas, record the effect of the green revolution on agriculture and the emergence of new agricultural economic practices in

the villages because of the green revolution. A sequence of similar economical practices had been brought into the villages by the forward and backward linkages of the latest agricultural processing technology. This in turn revised the households' revenue basket to more and more non-farm income. Although prosperity led to a diversification of rural economics as a reason for newly-funded growing non-farm jobs in rural areas, often a different understanding, exactly the opposite, was made. Quite generally, this point may be defined as difficulties caused by the diversification of rural jobs. The importance of industrial, non-farm jobs lies in the risk of absorptive agricultural surplus labor and thereby reducing rural-urban migration distress. While access to non-farm activities can increase monthly spending expenses per capita, it also could lead to more inequalities.

In the context of India, diversification in rural employment has gained significant importance over time which has been studied by several researchers over the past two decades (Basant and Kumar, 1989; Visaria, 1995; Chadha and Sahu, 2002; Bhaumik, S.K, 2002b, 2007a; Mukhopadhyay and Rajaraman, 2007). Importantly, the non-farm sector's share in employment (principal and subsidiary status) increased during the period 1993-94 to 2009-10. However, if we compute the growth rate of non -farm employment (NFE) for different periods and make a comparison, we can note that the annual growth of non -farm employment has decreased during 1993-94 to 1999-00, the early years of economic liberalization. However, the situation changed during 1999-00 to 2004-05, when the growth rate of non -farm employment showed an upturn. The situation again reversed during 2004-05 to 2009-10[1].

The growth rate of employment in the farm sector[2] in the recent periods turn out to be negative. Data published by National Sample Survey Office (NSSO) on employment and unemployment

[1]the growth rate is computed on the basis of the Employment and Unemployment Report of NSSO for the years 1993-94, 1999-00, 2004-05 and 2009-10.
[2]farm sector includes employment in agriculture and allied activities like hunting, forestry and fishing etc.

show that considering Usual Status[3] (US) rural male workers, farm employment as a percentage of total employment declined from 74.1 percent in 1993-94 to 62.8 percent in 2009-10. For rural female workers, the percentage of farm employment declined from 86.2 percent in 1993-94 to 79.3 percent in 2009-10. Therefore, during the period 1993-94 to 2009-10, there was a sharp decline of farm employment both for males and females. However, the decline of farm employment was greater for males (decrease by 0.71 percentage points) during the reference period compared to females (0.43 percentage point). Similar trend is observed for urban males and females during the reference period. Therefore, the share of agriculture and allied activities (i.e. farm sector) in total employment (considering rural and urban person) shows a declining trend from 63.0 percent in 1993-94 to 53.2 percent in 2009-10 (see Table-1).

Therefore, the current trend in Indian Economy reveals that the excessive dependence on agriculture as a source of livelihood shows a steady decline and rural economy has witnessed a modest degree of diversification. Though significant percentage of people (more than 50 %) is dependent on agricultural sector but the share of agriculture in employment and Net Domestic Product (NDP) shows a declining trend (see Table-1.1).

[3]a person in this approach is considered as 'worker' if he/she is engaged in any economic activity either in Principal status or in the Subsidiary status during the preceding 365 days i.e. reference period of the survey. Principal status and Subsidiary status are categorized on the basis of 'major time spent criteria'. Principal status and subsidiary status workers are together defined as 'all workers'.

Table –1.1: Share of Farm Sector in Employment and NDP

Year	Share of Farm Sector in total Employment (%)	Share of Farm Sector in NDP (%)
1993-94	63.0	31.68
1999-00	59.8	26.48
2004-05	58.5	21.35
20011-12	53.2	18.00

Source: Employment data based on NSSO Report on Employment and Unemployment for the years 1993-94, 1999-00, 2004-05 and 2011-12, NDP data based on National Income Statistics, CMIE, July 2009.

Past researchers (see for e.g.,Bhalla, 1993b; Papola, 1987; Shukla, 1991; Jayaraj, 1994; Eapen, 1995; Hazell and Haggblade, 1991 and so on) have identified many factors that increase the non-farm employment opportunities within the rural non -farm sector.

Researchers have agreed about the positive role that this sector can play in the economy, but they have arrived at contrasting conclusions about the determinants of the rural non-farm employment (RNFE) in the rural areas. Several economists are of the opinion that agriculture plays an important role in employment generation in the rural sector. It is also possible that in some cases rural non-farm employment would rise due to the distress conditions of the rural households. Some researchers (Chandrasekhar, 1993; Sen, 1994) have found both of these forces to operate to determine the magnitude of the RNFE. Therefore, to analyse, the growth and determinants of non-farm employment, a region-specific analysis is required.

1.1. Diversification of Workforce: Rural Non–Farm Sector

The past experience of most developed nations, including India, has shown that the design of development policies has been based on the conceptual framework underlying the fact that development is becoming mainly urban, industrial and capitalist economics as a process of structural transformation. The political framework of those countries was built upon the

stylised, historic evidentiary model of explanations such as that of Clark (1940) and Kuznets (1966), and developed theories such as that of Lewis (1954). These theories are now well known to explain the fact that the structure of production changes as the economies develop so that the share of agriculture gradually decreases, the proportion of industry increases too, and the share of services is increased thereafter. The changes in the workforce structure are also followed by a symmetrical shift from agriculture to industry and services. Similarly, production and employment will be moved from rural to more urban areas.

Table 1.2. Spatial Change in Industrial Distribution of Gross Domestic Product (At 2004 – 05 Prices, in Percentage)

Sector/Industry	1972 – 73	1983 – 84	1993 – 94	2004 – 05	2011 – 12
Agricultural and Allied Activities	41.1	35.5	28.4	19.0	14.1
Primary Sector	41.1	35.5	28.4	19.0	14.1
Mining and quarrying	2.3	2.9	3.3	2.9	2.1
Manufacturing	13.3	14.8	14.6	15.3	15.7
Electricity. Gas & Water Supply	1.1	1.6	2.2	2.1	1.9
Construction	7.6	6.6	6.6	7.7	7.9
Secondary Sector	24.4	25.8	26.8	27.9	27.5
Trade, Hotels & Restaurants	10.5	11.8	12.6	16.1	16.9
Transport, Storage & Communication	4.0	5.6	5.5	8.4	10.6
Financing, Real Estate & Business Services	7.9	9.1	13.3	14.7	18.1
Community, Social & Personal Services	12.1	12.2	13.5	13.8	12.8
Tertiary Sector	34.5	38.7	44.8	53.0	58.4
Non – Agriculture	58.9	64.5	71.6	81.0	85.9
Total	100.0	100.0	100.0	100.0	100.0

Source: India Labour and Employment Report, 2014; Institute for Human Development (2014)

However, many developing countries and India's experiences differ greatly from the previous experiences in today's developed countries. The production structure has been changing

dramatically with the share of agriculture in the associated activities decreased from 41% in 1972-7 3 to 14% in 2011-12, although the share of the secondary industry grew only marginally from 24 to 28%. It is interesting to note that as the share of agriculture sector decreased, the share of non – agriculture sector had shown continuous improvement. The rate of growth which was around 59% during the year 1972 – 73, increased to 86% in the year 2011 – 12. Thus, the importance of non – farm sector has kept on increasing so as its contribution towards GDP growth of India.

Table 1.3. Changes in Employment Structure of India between 1972 – 73 to 2011 – 12 (In Percentage)

Sector/Industry	1972 – 73	1983 – 84	1993 – 94	2004 – 05	2011 – 12
Agricultural and Allied Activities	73.9	68.6	64.8	58.5	48.9
Primary Sector	73.9	68.6	64.8	58.5	48.9
Mining and quarrying	0.4	0.6	0.7	0.6	0.5
Manufacturing	8.9	10.6	10.5	11.07	12.8
Electricity. Gas & Water Supply	0.2	0.3	0.4	0.3	0.4
Construction	1.8	2.3	3.1	5.6	10.6
Secondary Sector	11.3	13.8	14.7	18.1	24.4
Trade, Hotels & Restaurants	5.1	6.3	7.4	10.2	11.4
Transport, Storage & Communication	1.8	2.5	2.8	3.8	4.4
Financing, Real Estate & Business Services	0.5	0.7	0.9	1.5	2.6
Community, Social & Personal Services	7.4	8.1	9.4	7.7	8.2
Tertiary Sector	14.8	17.6	20.5	23.4	26.7
Non – Agriculture	26.1	31.4	35.2	41.5	51.1
Total	100.0	100.0	100.0	100.0	100.0

Source: India Labour and Employment Report, 2014; Institute for Human Development (2014)

Table 1.3 shows the changes in employment structure in India. However, the change in the structure of workers did not correspond to changes in the production structure. There has been no shift in agricultural employment, but only a decrease of 74 percent to 49 percent. Close to half the workforce in agriculture accounts for just 14% of the share of domestic product and the third sector accounts for almost two-thirds of output, representing just over a quarter of the share in employment. The history of the Indian economic development has certain fascinating structural characteristics with the asymmetrical changes in production and employment structures (Papola 2013).

As mentioned, it is important to create sustainable (long-term) employment opportunities in order to get the benefit of demographic dividend. Expectations of such jobs have increased, especially among the young, because of the spread of educational opportunities. There has been a significant rise in the number of rural non-farm jobs both primary and secondary over the period 1999-2000 to 2011-2012. The same can be seen in table 1.4.

Table 1.4. Percentage of Rural Workers in Non–Farm Activities

Categories	1999 – 2000	2011 – 12
Male (Principal Status)	28.9	40.86
Male (Subsidiary Status)	18.5	42.03
Female (Principal Status)	15.8	25.51
Female (Subsidiary Status)	10.0	33.26
All Non–Farm Workers (Principal Status)	25.1	37.21
All Non–Farm Workers (Subsidiary Status)	14.8	37.91

Source: Employment and Unemployment Survey, NSSO, 1999 – 2000, 2011 – 12

If we look at state-wise figures, the major growth in non – farm employment opportunity can be seen in the State of Jammu and Kashmir. Low penetration of agricultural sector is also another primary reason. This is followed by Goa and Punjab. One more important point to note

that the percentage growth of women workforce in non – farm activities in these three states are more than their male counterpart.

Table 1.5. Percentage of Rural Workers in Non – Farm Activities (Principal Activity)

State	Total Workers		Male Workers		Female Workers	
	1999 – 00	2011 – 12	1999 – 00	2011 – 12	1999 – 00	2011 – 12
Andhra Pradesh	21.9	29.9	26.1	35.8	16.1	21.6
Arunachal Pradesh	18.2	22.1	26.2	29.0	5.6	9.4
Assam	34.5	39.7	36.3	41.5	23.0	26.7
Bihar	19.9	33.0	21.1	33.4	`15.1	26.9
Chhattisgarh	-	14.8	-	18.4	-	9.1
Delhi	93.4	98.0	93.8	97.5	80.2	100.0
Goa	74.4	95.4	76.7	96.3	66.2	92.9
Gujrat	22.1	26.6	28.6	30.4	9.7	14.6
Haryana	40.0	48.0	40.7	49.7	29.3	31.0
Himachal Pradesh	34.0	38.2	49.2	60.9	7.9	12.6
Jammu and Kashmir	33.5	67.3	34.1	66.7	25.1	76.3
Jharkhand	-	45.1	-	49.0	-	22.2
Karnataka	18.3	30.1	21.6	34.2	12.6	20.8
Kerala	57.7	72.1	58.7	73.2	54.8	68.6
Madhya Pradesh	13.2	28.7	16.2	31.1	8.0	20.9
Maharashtra	18.1	24.4	26.6	30.3	6.1	12.2
Manipur	25.7	49.8	22.5	43.8	37.2	70.3
Meghalaya	13.6	32.8	14.1	39.3	12.9	23.9
Mizoram	16.0	19.8	16.6	22.9	15.2	14.2
Nagaland	25.6	27.7	30.2	33.2	14.4	12.0

Odisha	21.9	39.5	22.9	40.7	19.3	34.4
Punjab	37.6	57.7	36.7	56.5	50.1	72.4
Rajasthan	26.2	41.3	33.6	50.0	10.6	21.6
Sikkim	39.7	26.8	43.4	37.6	30.6	13.6
Tamil Nadu	32.5	46.4	37.7	48.5	24.6	42.6
Tripura	54.6	65.2	54.9	64.7	52.0	67.8
Uttarakhand	-	43.5	-	59.4	-	9.6
Uttar Pradesh	26.1	40.8	28.6	43.6	15.8	24.5
West Bengal	34.7	44.8	33.5	43.2	40.9	53.6
A & N Islands	36.4	65.0	40.0	62.8	23.1	71.8
Chandigarh	30.0	98.8	32.0	98.7	97.2	100.0
Dadra & Nagar Haveli	44.7	65.4	61.4	70.7	16.1	48.5
Daman & Diu	68.2	90.8	78.4	90.8	33.9	89.7
Lakshadweep	49.6	90.9	51.8	89.8	39.4	99.5
Puducherry	40.1	69.6	47.4	74.3	25.3	58.7
All India	25.1	37.2	28.9	40.9	15.8	25.5

Source: Employment and Unemployment Survey, NSSO, 1999 – 2000 and 2011 - 12

The next thing we must examine is whether this change takes place between all the economic classes, having noticed a significant shift in favour of rural, non-farm jobs. To detect this, the researcher analysed all the data from the 2002-03 and 2012-13 Indebtedness and Investment Survey. The primary goal of the decadal studies is to calculate the property ownership and extent of household liabilities and to assess the borrowing extent. In the rural or agricultural economy, the economic wellbeing of a household is crucially linked to the property ownership. In an agricultural industry, it depends essentially on the extent to which household workers engage their workers or deploy them in their own household enterprises. Asset ownership also

provides some security from adverse economic shocks. If we go by the definition, all household items with a value for money were considered household assets. This included physical assets, such as land, houses, livestock, agricultural machinery and equipment, non-farm businesses, all transportation equipment and long-lasting household goods and financial assets such as duties on loans in cash and in kind and on shares and deposits held by the household members. The details of asset ownership can be seen in the table 1.6.

Table 1.6. Asset Ownership by Household Type (In Percentage)

Asset Decile	Agriculture		Non – Agriculture*	
	2002 – 03	2012 – 13	2002 – 03	2012 - 13
0 – 10	42.1	34.8	57.9	65.2
10 – 20	60.5	47.9	39.5	52.1
20 – 30	59.8	52.3	40.2	47.7
30 – 40	62.0	49.8	38.0	50.2
40 – 50	61.5	58.3	38.5	41.7
50 – 60	63.2	62.2	36.8	37.8
60 – 70	66.1	66.2	33.9	33.8
70 – 80	70.6	69.1	29.4	30.9
80 – 90	71.6	70.5	28.4	29.5
90 – 100	76.4	72.0	23.6	28.0

Source: All India Debt and Investment Survey, NSSO, 2002 – 03 and 2012 – 13

**Non agriculture sector includes Self-employed in non – agriculture sector, other labour households and other households.*

The table 1.6 shows asset decile wise distribution of workforce between agriculture and non – agriculture sector. The evidence shows that there is an increase in asset ownership among workers engaged themselves in non – agriculture sector. This growth can be seen till 30 – 40 asset deciles. After that not much growth is seen in both agriculture and non – agriculture sector. It can be concluded that the changes are more visible among the people having lower

asset ownership than the people having higher asset ownership. If we further investigate the data from the perspective of non – agricultural sector alone, it can be seen that a significant percentage of workforce is shifting towards non – agricultural wage employment rather than non – agricultural self-employment. This also indicates that even if the people want to shift their focus from agricultural income to non – agricultural income the same is not happening may be because of lack of funds to start self – employment in non – agricultural sector. Hence, the move towards more secured wage employment is visible. Again, this trend is increasing the chances of migration in a particular sector, as place of origin may not have sufficient job to provide in the form of wage employment. Even this is increasing the participation of workforce in informal job sectors as well.

Table 1.7. Asset Ownership wise Distribution of Workforce in Non – Agriculture Sector

Asset Decile	Self Employed		Wage Employment	
	2002 – 03	2012 – 13	2002 – 03	2012 - 13
0 – 10	18.5	10.1	81.5	89.9
10 – 20	41.1	18.0	58.9	82.0
20 – 30	40.9	23.8	59.1	76.2
30 – 40	41.6	28.3	58.4	71.7
40 – 50	42.6	29.6	57.4	70.4
50 – 60	43.6	30.4	56.4	69.6
60 – 70	43.3	29.4	56.7	70.6
70 – 80	40.6	32.4	59.4	67.6
80 – 90	40.7	32.2	59.3	67.8
90 – 100	40.3	37.2	59.7	62.8

Source: All India Debt and Investment Survey, NSSO, 2002 – 03 and 2012 – 13

The table shows that percentage of workforce engage in wage employment is more among the group who are having lower asset ownership. As the asset ownership increases this gives them enough financial support to start their own business to supplement the agricultural income. The

same is not the case for the people who are poor. Thus, there may be a tendency among them to migrate and join in informal sector if the wage employment possibility is not available in the place of origin. The overall shift from farm to non-agricultural activities in rural workforce in the period 1999-2000-2011-12 was much more prominent for households with a lower asset base. In addition, the proportion of non-agricultural households declined and the proportion of households that depend primarily on wage work increased. It can therefore reasonably be concluded that lower-asset families are increasingly dependent on non-farm income sources, mainly on non-farming wage employment.

1.2. Changes in Rural Non – Farm Employment

As has been pointed out earlier the Indian economy is predominantly rural in terms of the working population, and over the past decades the rural production and employment structures have seen considerable dynamism. The growing part of the non-farm sector, which increased from 37 percent in 1980-1981 to 65 percent in 2009-2010 is among the significant changes in rural production and showed that rural areas are no longer simply agricultural driven in terms of value. Therefore, it is a very valid observation to say that "the old vision of rural economies that is purely agriculture no longer reflects fully the reality." (Haggblade et al. 2010). In rural India, as well, there is an asymmetry between the shifts in production structure and the employment structure in the Indian general economic development. But there has been a substantive shift towards non-farm employment within the rural employment structure.

Table 1.8. Rural Non – Farm Workforce by Industry (In Percentage)

Sector	1999 – 2000		2011 - 12	
	Industry	**% of Workers**	**Industry**	**% of Workers**
Manufacturing	Textile	5.2	Wearing Apparel	3.24
	Food Products & Beverages	4.7	Other non-Metallic Mineral Products	3.10
	Wood & Wood Products	4.4	Food Products	2.71
	Other non-Metallic Mineral Products	3.7	Textile	2.51
All Manufacturing		29.2		22.7
Construction		14.4		30.1
Other Non Manufacturing		2.8		2.1
All Non – Manufacturing		17.2		32.2
Services	Retail Trade	17.1	Retail Trade	14.1
	Land Transport	8.1	Land Transport	7.9
	Other Service Activities	6.6	Education	6.0
	Education	5.9	Public Administration	2.4
All Services		53.6		45.1
All Non Farm Sector		100		100

Source: Employment and Unemployment Survey, NSSO, 1999 – 2000 and 2011 – 2012

While the share of rural non-farm manufacturing declined between 1999 and 2000 and 2011-12, manufacturing jobs grew by an average of 2.13 percent per year. The biggest loser in the manufacturing sector was the textile industry, in which jobs fell by 1.82 percent annually. Likewise, although service sector share has declined, overall employment has risen by an

average annual rate of 3.02 percent in the service sector. The service sector seems to have been growing most rapidly with the annual average rate of 4.83% and 2.74% respectively in land transportation and the trade in retail. Despite an overall increase in employment the share of both manufacturing and service sectors fell because jobs in the building industry were increasing unprecedented (which is part of non-manufacturing sector). The average annual rate of employment in the building sector grew by 19.85% between 1999-2000 and 2011-2012. The growth in construction jobs alone contributed to a 55.5% increase in rural non-farm jobs.

While the participation of rural workers has changed significantly, without prejudice to fluctuations in women's workforce, the structure of rural employment changed substantially.[4]In the last two decades rural male participation was more stable at around 55 percent but rural female participation fluctuated at around 30 percent, and by 2011-2012 dropped sharply to approximately 26 percent.[5]The share of agriculture in rural employment decreased from 78% to 64% between 1993-94 and 2011-12, and the rate of fall during the last five years decreased much more rapidly.[6]In the 1990s, the rate of employment in agriculture decreased clearly at a rate of 0.19% annually, which implies that in rural and urban areas the non-agricultural sector has to absorb all of the growth in rural labour force. Within this bleak scenario of declining employment growth, the Rural Non-Farm Employment (RNFE) continued growth in the RNFE of 3.23 to 3.64 per cent between 1993-94 and 2004-05, at 3.23 per cent in the 1980s, and 4.03 per cent in 1999-2000 to 2009-10 between 1993-94 and 2004-05.

If we look at percentage of rural employment in non – farm activities, we will get a all-total new dimension. The details are shown in the table 1.9.

[4]Employment and Unemployment Survey, NSSO, 2011 - 12
[5]Employment and Unemployment Survey, NSSO, 2011 - 12
[6]Employment and Unemployment Survey, NSSO, 2011 - 12

Table 1.9. Sector-wise Distribution of Rural Non-Farm Employment (In Percentage)

Sector (By Principal Status)	Self-Employment		Wage Employment		Casual Wage Employment	
	1999 – 00	2011 – 12	1999 – 00	2011 – 12	1999 – 00	2011 – 12
Manufacturing	55.6	51.2	23.1	26.3	21.3	22.5
Construction	20.8	8.9	3.3	2.3	75.9	88.7
Other Non – Manufacturing	9.8	6.2	34.3	38.4	55.9	55.4
Services	50.4	53.8	33.4	37.5	16.2	8.7
All Non – Farm Sector	46.5	38.7	24.6	24.4	28.9	36.9

Source: Employment Unemployment Survey, 1999 – 2000 and 2011 – 2012

The table reveals that growth in manufacturing job is seen in wage employment category, whereas in the self-employment, a decline is witnessed. In the construction sector, majority of the workforce is moving towards causal wage employment and this justifies the previous conclusion that most of the wage employment is happening in the informal sector. In comparison to other sectors, growth in service sector can be witnessed in the regular wage employment and same has seen a significant growth in causal wage employment segment. Overall, rural non – farm employment has seen a significant growth in causal wage employment only. Self – employment segment showed a declining trend while regular wage employment segment remained stagnant. Hence, this raises the question of quality of employment in the rural non – farm sector, which the main area of the present research. The employment shifts between different social groups are another noteworthy dimension of the changes in rural-employment structures. The RNFE SC workers have significantly increased from 20 percent in 1993-94 to 36 percent in 2009-10 and SCs' agricultural reliance on the OBCs (67.9 percent) and "other" is even smaller (65.3 percent).[7]One more important point to note

[7]Employment and Unemployment Survey, NSSO, 2011 - 12

regarding self – employment activity is that it is very hard to define. The range of its activities range from dire livelihood rack-picking or street-sales to the practice of law or medicine to real estate brokerage makes self-employment one of the biggest puzzles of analyses. It often raises questions about how trouble driven or driven by ways to improve profits is non-farm self-employment. The fact that some 20 million women dropped out of self-employment in five years between 2004-2005 and 2009-10 appears to be more troublemaking self-employment among women. During this period, the drastic decline in female employment was entirely due to women's withdrawal from self-employment. In contrast, there is evidence that rural men are self-employed during diversification from agriculture, improved productivity, and earnings. This area requires further analysis to shed light on factors which facilitate women's movements and women's retirement from rural self-employment.

1.3. Quality of Employment in Rural Non – Farm Sector

Let us first define the quality of employment as given in the International Labour Organization (ILO) in 1999. It defines quality of work in terms of decent work and defines it as 'opportunities for women and men to obtain decent and productive work in conditions of freedom, equity, security and human dignity', (quoted in Anker et al 2003).It also signifies that at the aggregate level; laws, regulations and institutions enable a growing number of people in all societies of the world to work without oppression, in reasonable security and with steadily improving opportunities for personal development, while earning enough to support themselves and their families (quoted in Standing, 2002). Anker et al (2003) describes the notion of decent work and mentioned six dimensions of decent work namely: i) opportunities for work; ii) work in condition of freedom; iii) productive work; iv) equity in work; v) security in work; and vi) dignity at work. The first two dimensions focus on the availability of work and the remaining four dimensions focus on the decency of the work itself.

In the context of India, there are some studies (see for e.g. A.K. Ghose, 1999) that consider the shares of various types of employment in total employment to construct an Employment Quality Index. Here, mode of employment is used as a broad indicator of assessing the quality of employment.

Besides the quantity of employment, the quality of employment can provide valuable insights into the nature of poverty and vulnerability. Low pay, variable levels of income, nature of jobs and other factors that are not incorporated in the standard employment or occupation data may cause poverty. In fact, these have not been covered in the standard published data. However, very few attempts have been made to measure and analyse quality of employment generated in the non-farm sector.

The above study arises a question of quality of employment in rural non – farm sector. Through various published secondary data (NSSO) it is observed that most of the workforce are either self-employed, or wage employed. But self – employment is restricted to those group of people who have substantial amount of assets. But a majority of the workforce do not have access to assets, hence they are moving for wage employment. But, due to lack of skills and education, they are not able to absorb themselves in formal sector job. The only sector remains, i.e., informal sector. Hence, the quality of employment in rural non – farm sector becomes an important issue. The informal sector is the location of the surplus work and this surplus work does not need to be completely unemployed. The possibility of sharing work and income makes a common feature of the informal sector and it leads to persistence of under-employment. As more employees share the output, in the informal sector, per employee output is always less than the formal sector. Thus, it is always desirable for inclusive growth to shift towards more formal employment. A shift from agricultural to formal non-agricultural employment does not occur at a time, and it often takes place across generations. However, the important point is

that the transition from farming to non-farming earnings is a phenomenon dominating the Indian economy. Non-farm activity can be split into two broad categories – 'high-income labour productivity activities and low-labor productivity activities only as a residual source of revenue' (Lanjouw, 1999). Although the poor and the illiterate had little employment activities, these activities served an important purpose in terms of providing livelihoods. We have noticed in the previous section a tendency to make rural non-farm employment more precarious. There is no written agreement between the employer and the employee for such opportunities. Table 1.10 shows the movement of the workforce towards informal sector where no written contract is available. This trend is surely not acceptable as it may hamper the welfare of the workforce and affect the livelihood of the entire sector. The detailed study may be seen with the help of the table.

Table 1.10. Non-Farm Rural Wage Workers by Type of Contract (In Percentage)

Status	No Written Contract		Written Contract upto 1 Year		Written Contract for More than 1 Year	
Principal Status	**2004 – 05**	**2011 - 12**	**2004 – 05**	**2011 - 12**	**2004 – 05**	**2011 - 12**
Manufacturing	90.3	88.8	1.5	1.8	8.2	9.2
Construction	96.5	96.8	0.5	1.5	3.1	0.8
Other Non – Manufacturing	79.9	76.2	3.4	1.7	16.7	21.9
Services	63.2	65.9	2.9	3.6	33.9	29.9
All Non – Farm Sector	80.3	87.0	1.8	1.6	17.9	11.4

Source: Employment and Unemployment Survey, 1999 – 2000 and 2011 – 2012

The data reveals that a significant number of workforces is working in the informal sector without a proper written contract. The percentage is highest in the construction sector, followed by manufacturing and service sector. The overall increase in percentage of non – contractual

employee from 2004 – 05 to 2011 – 12 is surely an area of concern. It is not difficult to ascertain that most of the workforce is without any valid contract in wage employment segment. But that was against the idea of decent labour and inclusive development. The 12th Five Year Plan stressed that sufficient productivity and decent working opportunities would be generated to achieve inclusive growth. During the last decade, the generation of rural jobs was rather slow, particularly in view of high economic growth. The increase in formal sector jobs in the rural non-farm sector has been one of the positive things that should be targeted. The growing trend of informal employment contracts in the formal sector was, however, a matter of concern. Table 1.11 shows another interesting fact. The data reveals that even in the formal sector, a significant number of workforces are working in an informal way without a valid contract.

Table 1.11. Rural Non – Farm Workforce in Formal Sector (By Formal/Informal Nature of Employment: In Percentage)

Status	Employed in Formal Sector		Formal Sector & Formal Employment (as % of all formal sector employment)		Formal Sector but Informal Employment (as % of all formal sector employment)	
Principal Status	**2004 – 05**	**2011 - 12**	**2004 – 05**	**2011 - 12**	**2004 – 05**	**2011 - 12**
Manufacturing	22.4	42.2	24.3	31.4	75.7	68.6
Construction	18.0	35.6	3.9	8.5	96.1	91.5
Other Non – Manufacturing	61.4	91.8	38.7	51.4	61.3	48.6
Services	28.9	34.6	66.7	65.1	33.3	34.9
All Non – Farm Sector	25.6	37.8	46.1	40.5	53.9	59.5

Source: Employment and Unemployment Survey, 1999 – 2000 and 2011 – 2012

Even we go into the depth, the data shows that in the formal sector, the percentage of informal employment is significantly high in the construction sector. Though, it is decreased from 2004 – 05 (96.1%) to 2011 – 12 (91.5%), but the rate of decrease is very marginal if we consider the time span. A marginal rate of decrease can be visible in manufacturing and other non-manufacturing sector as well. A highest decrease can be witnessed in the other non - manufacturing sector. If we look at all non – farm sector, the rate is increased from 53.9 in the year 2004 – 05 to 59.5% in the year 2011 – 12 and it is understandable that none of these workforces have social security benefits that their formal sector counterparts are enjoying. This disparity is widening and with every passing of time, this phenomenon become visible in both private as well as public sector organizations.

A key determinant of job quality is education achievement (India Human Development Report, 2011; International Bank 2012; IHD 2014). Education attainment with a quarter of the rural non-farm workers illiterate, the education levels of non-farm workers remain an issue, particularly where the non-farm sector is to provide productive and decent jobs. Though there has been a decline in the share of illiterate workers over the years, over a third of building workers (who experienced a significant increase in employment) remain illiterate. These workers, obviously, have very little or no social security at all in casual wage employment. Table 1.12 shows the percentage of rural non – farm workforce in terms of their level of education.

Table 1.12. Rural Non – Farm Workforce by Education (In Percentage)

Sector	Illiterate		Primary		Secondary		HS & Above	
Principal Status	**1999 – 00**	**2011 - 12**	**1999 – 00**	**2011 - 12**	**1999 – 00**	**2011 - 12**	**1999 – 00**	**2011 - 12**
Manufacturing	37.3	26.6	15.8	16.2	8.8	12.2	5.6	11.9
Construction	44.1	36.2	15.1	17.6	7.2	8.8	2.7	4.6
Other Non – Manufacturing Services	43.4	32.2	13.4	16.0	12.5	12.2	5.5	15.4
Services	24.1	16.1	12.2	12.2	15.1	16.5	18.5	27.8
All Non – Farm Sector	31.4	24.8	13.7	14.8	12.0	13.1	12.1	17.0

Source: Employment and Unemployment Survey, 1999 – 2000 and 2011 – 2012

The table shows that percentage of the illiterate workforce is significantly higher in construction followed by manufacturing sector. In both these two sectors, the average percentage of the illiterate workforce is more than the industry average in the year 2011 – 12 (24.8%). As the qualification increases the percentage of workforce is decreased. Though there is a decreasing trend in case illiterate workforce between 1999 - 2000 to 2011 – 2012-time frame in all the sectors, actual rate of decrease is not that much impressive. Only in case of service sector, the rate of educated workforce (workforce having educational qualification HS and above) is more in the year 2011 - 12 (28%). This sorry state of affair is affecting the quality of workforce in the job market. It is obvious that they are lacking skills as well. So, low education level and low skill level making them more vulnerable in the informal sector.

It is important to note that how educational achievement can impact the rural non-farm jobs is difficult to establish conclusively. There are jobs in which workers participate irrespective of their educational achievement. There are also professions that need high levels of expertise. Formal education is not necessarily a major factor in determining rural non-farm jobs.

However, this analysis showed that decent employment possibilities in services have improved at higher education levels about decent job opportunities.

This is not the end, along with formal education, we need to look at growth of technical education among rural non – farm workforce to get quality employment.

Table 1.13. Rural Non – Farm Workforce by Level of Technical Education (In Percentage)

Status	No Technical Education		Diploma/Certificate (Below Graduate)		Technical Degree	
Principal Status	**1999 – 00**	**2011 - 12**	**1999 – 00**	**2011 - 12**	**1999 – 00**	**2011 - 12**
Manufacturing	29.5	22.6	19.6	29.6	16.2	12.8
Construction	14.7	30.7	5.7	8.2	5.3	3.7
Other Non – Manufacturing	2.7	2.0	3.2	4.8	6.1	2.7
Services	53.0	44.6	71.4	57.4	72.3	80.7
All Non – Farm Sector	100.0	100.0	100.0	100.0	100.0	100.0

Source: Employment and Unemployment Survey, 1999 – 2000 and 2011 – 2012

With regard to technical training, an overwhelming 97% of rural non-farm workers had no technical education at all. More importantly, in 2011-12, the proportion of rural workers who did not receive technical education increased marginally from 1999-2000.As with general education, the service sector's share was also higher in technical education compared to other major sectors. In 2011-12, for example, 45% of rural non-farm workers were employed on services, but the proportion of workers with technical degrees amounted to 81%. Rather, the fastest growing employment industry, namely the construction industry, representing 30% of rural non-farm workers in the period 2011-2012, accounted for less than 4% of workers with a

technical qualification. Employment in the building industry thus increased without any considerable effect on its employees' technical knowledge and skills.

Thus, without technical expertise, the construction sector created jobs. Education does play a significant role in determining the quality of employment, although workers are involved in occupations, regardless of their educational achievement. One-fourth of rural non-farm workers being illiterate remained a matter of concern. The low basic education makes it more difficult to develop skills. The construction industry, which was the largest creator of employment in the country, was also the major share of illiterates and the smallest share of technical graduates. For the better-trained workers, the service sector provided increased employment opportunities.

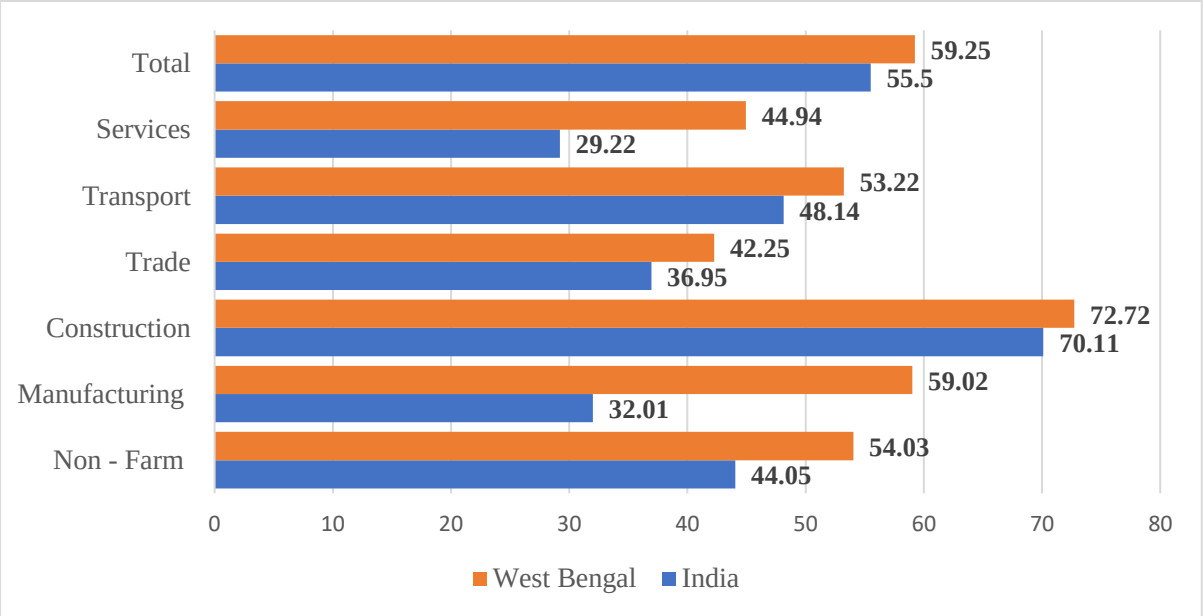
1.4. Rural Non – Farm Employment: Case of West Bengal

This section analyses the changing patterns and nature of employee participation in rural Bengal. In rural Bengal the way in which agriculture is becoming unprofitable and is no longer the major source of life is changing nowadays. A large proportion of rural workers were found to be relocating from fanning and participating in a variety of informal non-farm activities. In the east part of India, the State of West Bengal occupies 2,7% of India's total rural area and 7,5% of the population of rural India.[8]Data from various rounds of NSSO on employment-unemployment, indicates that although shares in total value-added in both India and West Bengal have gone in a similar direction, the state's production composition is a little bit more agriculture than non – agriculture, compared with India. But, if we look at the creation of new jobs, then West Bengal is able to create more jobs in non – agricultural sectors than agricultural sectors and this rate of creation is higher than the average job creation at national level. An area

[8]Census Report, 2011

of concern remains in the state. Although, the state is able to create more jobs in non - farm sector, but farm productivity is still higher than non – farm productivity in comparison to all India average. For both India and West Bengal (due to the urbanisation process), the share of rural in total workforce has decreased; however, the share of rural in non-agricultural in Western Bengal has increased, indicating that agricultural jobs in the state not in the whole are created more in rural than in urban areas. This is true for all non-farming sub-sections except commercial, hotel, and restaurant sectors, and there is a steep increase in jobs in construction (and more in 2000-2010).

Figure 1.2. Growth of Non – Farm Sector Employment in West Bengal (In Percentage): 1988 - 2010



Source: Computed from various Census Data

The graph shows that the rate of growth of job opportunities in West Bengal is higher compared to all India average. Among, the various prominent sectors, the major increased in non – farm job opportunity can be witnessed in the construction sector. Moreover, the rate of growth is higher than the all-India average. We already discussed the consequence of growth in non –

farm job opportunity in construction sector. A majority of the workforce are joining in this sector as it is able to absorb the workforce without much technical knowledge but as the job is informal in nature, most of the workforce do not have any kind of job or social security. A higher growth may be witnessed in the manufacturing sector as well if we compare with all India average. The figure illustrates that the employment generation in the state, particularly in the producing and service sectors, is more pro-rural compared to the national average. The shift from rural work towards the non-farm sector is much greater for India and specifically West Bengal. The main employment providers in western Bengal are manufacturing and trading, whilst the building industry has been the same for India.

Table 1.14. Rural Workforce Participation Rate (Various Census Years): In Percentage

Year	Male (%)	Female (%)
1993 – 94	55.4	8.8
1999 – 00	54.3	12.1
2004 – 05	58.1	11.1
2009 – 10	60.9	9.6
2011 – 12	59.4	11.2

Source: Census Report, 1993 – 94, 1999 – 00, 2004 – 05, 2009 – 10, 2011 - 12

We can see from the table that West Bengal has recorded an important gap between men and women in the field of rural workforce participation rate (WFPR). With rural male workers from West Bengal, it has been established that the WFPR ranges by 54.3% to 59.4%, and with women the same is found to be in the range of 8.8% to 11.2%. It is surprising, in West Bengal, that the WFPR of rural males recorded negative inter-temporal growth in 2011-2012 over 2009-2010.

Compared to India and the sixteen major States, Table 1.15 and Table 1.16 summaries West Bengal's position. Here we can see that West Bengal has a share of about 7% of total Indian population, rural and rural (both from the PS and UPSS) population, but for rural farm sector,

it is about 6% while the share is more than 9.0% for rural non-farm sector. This demonstrates that West Bengal's rural occupational structure is non – farm oriented in comparison to other states of the country. The same can be seen in Table-1.16, which shows that West Bengal's share of rural non-farm workforce is two to four, and particularly high for women. Manufacturing in rural labour continues to increase to around 13.8 percent in PS and 16.7 percent in USSS with female UPSS accounting for 21.7 percent of India. West Bengal's share in the construction sector was slightly less in comparison with other states, although the construction workforce grew by 7 percent between 2000 and 2010.The trading sector employs more rural workers (especially male employees), which makes the state share approximately 10% and the West Bengal rank is two out of six major states. The shares in transport and Rank are also higher. For service employees, the proportion of females is higher than males. For both PS and UPSS employees, the share of the State is 6 out of 16.

Table 1.15. Share of West Bengal in India by Workforce

PERCENTAGE SHARE OF WEST BENGAL IN INDIA												
	TOTAL POPULATION			RURAL POPULATION			RURAL WORKFORCE (PS)			RURAL WORKFORCE (UPSS)		
	M	F	P	M	F	P	M	F	P	M	F	P
1987-88	...	...	8.02	7.79	7.79	7.80	7.73	3.21	6.34	7.95	4.73	6.79
1993-93	...	...	7.98	7.83	7.85	7.83	7.83	2.82	6.35	7.88	4.43	6.63
1999-00	...	...	7.81	7.77	7.80	7.78	7.80	3.92	6.61	7.81	4.17	6.51
2004-05	...	...	7.71	7.66	7.69	7.67	8.06	3.24	6.59	8.05	4.19	6.62
2009-10	...	...	7.56	7.49	7.52	7.50	8.28	3.39	7.14	8.32	4.38	7.21
	RURAL AGRI WORKFORCE (PS)			RURAL AGRI WORKFORCE (UPSS)			RURAL NONAGRI WORKFORCE (PS)			RURAL NONAGRI WORKFORCE (UPSS)		
	M	F	P	M	F	P	M	F	P	M	F	P
1987-88	7.41	2.21	5.68	7.70	3.95	6.24	8.68	7.99	8.52	8.67	9.08	8.77
1993-93	6.82	1.49	5.09	6.88	3.02	5.36	10.67	10.10	10.56	10.71	13.02	11.25
1999-00	7.26	2.66	5.70	7.26	2.64	5.43	9.15	10.50	9.41	9.12	12.97	9.95
2004-05	7.79	2.15	5.82	7.73	2.95	5.71	8.61	8.12	8.51	8.70	10.29	9.05
2009-10	7.83	1.80	6.10	7.87	2.34	5.98	9.03	9.26	9.07	9.13	12.26	9.76
	RURAL MFG WORKFORCE (PS)			RURAL MFG WORKFORCE (UPSS)			RURAL CON WORKFORCE (PS)			RURAL CON WORKFORCE (UPSS)		
	M	F	P	M	F	P	M	F	P	M	F	P
1987-88	9.76	11.69	10.35	9.78	13.43	11.04	3.97	1.20	3.20	3.87	1.05	3.05
1993-93	13.30	13.44	13.35	13.17	18.97	15.25	6.64	7.17	6.70	6.65	7.87	6.82
1999-00	11.75	15.51	12.90	11.66	19.82	14.57	4.68	1.96	4.40	4.69	1.52	4.32
2004-05	8.96	10.84	9.56	9.07	14.40	11.07	5.84	1.14	5.39	5.92	1.40	5.42
2009-10	14.00	13.32	13.81	14.27	21.77	16.72	5.09	1.29	4.64	5.16	0.84	4.41
	RURAL TRD WORKFORCE (PS)			RURAL TRD WORKFORCE (UPSS)			RURAL TRA WORKFORCE (PS)			RURAL TRA WORKFORCE (UPSS)		
	M	F	P	M	F	P	M	F	P	M	F	P
1987-88	11.30	5.22	10.26	11.07	5.85	10.08	12.15	3.21	11.96	12.32	4.73	12.11
1993-93	12.80	5.12	11.72	12.90	5.69	11.63	12.80	2.90	12.01	12.54	3.05	12.26
1999-00	11.81	5.79	11.06	11.72	5.84	10.92	10.48	0.78	10.35	10.25	0.83	10.10
2004-05	11.16	4.98	10.38	11.05	5.69	10.27	9.71	3.24	9.57	9.74	2.09	9.52
2009-10	10.81	5.57	10.18	10.66	7.19	10.19	10.45	5.64	10.33	10.55	8.75	10.52
	RURAL SVS WORKFORCE (PS)			RURAL SVS WORKFORCE (UPSS)			RURAL AGRI WORKFORCE (SS)			RURAL NONAGRI WORKFORCE (SS)		
	M	F	P	M	F	P	M	F	P	M	F	P
1987-88	7.49	9.03	7.80	7.69	9.61	8.10	13.55	8.89	9.93	8.00	16.26	13.87
1993-93	8.82	8.17	8.70	9.01	8.33	8.86	8.84	6.61	7.00	12.64	23.70	20.95
1999-00	6.26	7.65	6.58	6.40	7.56	6.68	7.45	2.58	3.08	6.92	25.49	21.35
2004-05	7.65	8.31	7.81	8.05	8.91	8.28	5.55	5.06	5.01	16.73	19.57	19.81
2009-10	7.99	11.05	8.80	8.32	12.37	9.43	9.58	4.12	4.80	21.62	23.99	21.73
M=Male, F=Female, P=Person												

	VALUE ADDED							
	Total	Agri	Nonagri	MFG	CON	TRD	TRA	SVS
1987-88	6.75	8.01	6.20	4.51	4.78	7.72	6.70	7.69
1993-93	6.72	8.11	6.15	4.22	6.09	7.68	9.29	6.76
1999-00	7.08	8.59	6.61	4.65	6.12	7.55	7.90	7.25
2004-05	7.17	9.00	6.71	5.12	6.53	6.93	7.57	7.40
2009-10	6.59	8.91	6.18	4.26	5.12	6.44	6.26	7.33

Source: Calculated from NSS, CSO and NAS data

Source: Census Report, 1987 – 88, 1993 – 93, 1999 – 00, 2004 – 05, 2009 - 10

http://hdl.handle.net/10603/184870

Table 1.16. Rank of West Bengal among 16 States in terms of Various Parameters

RANK OFWEST BENGAL AMONG 16 MAJOR STATES (HIGHEST=1, LOWEST=16)												
	% rural in total population			% PS workforce in rural population			% UPSS workforce in rural population			% Rural in total UPSS workforce		
	M	F	P	M	F	P	M	F	P	Total	Agri	Nonagri
1987-88	...	...	11	9	14	13	7	14	13	13	6	12
1993-93	...	...	11	8	14	13	8	14	13	12	5	8
1999-00	...	...	10	9	13	11	9	15	12	12	4	9
2004-05	...	...	8	6	15	12	6	16	14	11	3	10
2009-10	...	...	8	3	14	10	2	15	11	9	6	7
SHARE IN RURAL WORKFORCE - SECTOR-WISE												
	AGRI (PS)			AGRI (UPSS)			NONAGRI (PS)			NONAGRI (UPSS)		
	M	F	P	M	F	P	M	F	P	M	F	P
1987-88	9	15	15	9	15	13	8	2	2	8	2	4
1993-93	12	16	15	13	16	15	5	1	2	4	1	2
1999-00	10	14	13	10	16	15	7	3	4	7	1	2
2004-05	10	14	13	10	15	15	7	3	4	7	2	2
2009-10	10	14	13	10	16	15	7	3	4	7	1	2
SHARE IN RURAL WORKFORCE - SECTOR-WISE												
	MFG (PS)			MFG (UPSS)			CON (PS)			CON (UPSS)		
	M	F	P	M	F	P	M	F	P	M	F	P
1987-88	4	1	3	5	1	3	14	8	14	14	11	15
1993-93	3	1	1	3	1	1	9	3	6	9	3	6
1999-00	2	1	1	2	1	1	13	13	12	13	13	13
2004-05	7	1	3	7	1	3	11	16	10	11	14	10
2009-10	1	1	1	1	1	1	11	14	11	11	14	11
SHARE IN RURAL WORKFORCE - SECTOR-WISE												
	TRD (PS)			TRD (UPSS)			TRA (PS)			TRA (UPSS)		
	M	F	P	M	F	P	M	F	P	M	F	P
1987-88	2	4	2	2	6	2	3	5	3	3	3	3
1993-93	2	2	2	2	5	2	4	2	4	5	3	3
1999-00	2	5	2	2	4	2	5	7	4	6	8	4
2004-05	3	4	2	3	4	2	5	8	4	6	8	3
2009-10	3	3	2	3	3	2	5	4	4	8	4	2
SHARE IN RURAL WORKFORCE - SECTOR-WISE												
	SVS (PS)			SVS (UPSS)			AGRI (SS)			NONAGRI (SS)		
	M	F	P	M	F	P	M	F	P	M	F	P
1987-88	9	4	5	9	2	6	4	13	13	13	4	4
1993-93	7	3	5	7	2	5	11	16	16	6	1	1
1999-00	13	5	8	12	3	7	9	16	16	8	1	1
2004-05	10	3	6	7	2	5	13	16	16	4	1	1
2009-10	8	3	6	8	2	6	13	16	16	4	1	1

continued

Source: Census Report, 1987 – 88, 1993 – 93, 1999 – 00, 2004 – 05, 2009 – 10

http://hdl.handle.net/10603/184870

Looking at the proportion of PS workers in the UPSS workforce, the non - farm sectors, and particularly the manufacturing and service, have very low rankings, approximately 15 and 16,

revealing that there are again many subsidiary jobs in these sectors. This is also supported by corresponding higher levels of women's involvement in those sectors. Sadly, this greater proportion of non - farm's employees does not translate into higher productivity. Looking at the share of the sub-sectors in total added-value, we see that non - farm's share is lower than the share of farm sector. Manufacturing, which has the lowest share of the rural non - farm employees in West-Bengal with only about 4 percent, at 13; and West Bengal is the lowest among the 16 for average labor-production percentage of manufacturing.

1.5. District wise Growth of Non – Farm Activities

So far, we've looked at national and state data and tried to figure out West Bengal's position in comparison to the other regions. In this section we look at the impact and distribution within the state, regional and local levels of rural non-farm employment. Most studies are conducted using secondary information in the NSS Reports, and the region-level studies are limited in number, based on unit level data. But when the geographical area of study is reduced, one takes a closer look at dynamics and variations.

Table 1.17. District wise Distribution of Non – Farm Workforce (Main and Marginal) In Percentage (2011 Census Year)

District	Male (Farm)	Female (Farm)	Male (Non-Farm)	Female (Non-Farm)
Burdwan	77.52	22.48	79.80	20.20
Birbhum	80.06	19.94	72.69	27.31
Bankura	69.17	30.83	76.37	23.63
Purba Medinipur	80.16	19.84	78.40	21.60
Paschim Medinipur	69.21	30.79	71.71	28.29
Howrah	97.09	2.91	81.39	18.61
Hooghly	78.17	21.83	58.93	41.07
Purulia	67.57	32.43	74.85	25.15
24 Parganas (N)	88.31	11.69	56.76	43.24
24 Parganas (S)	85.02	14.98	59.65	40.35
Kolkata	59.55	40.45	78.96	21.04
Nadia	93.70	6.30	76.07	23.93
Murshidabad	93.46	6.54	61.64	38.36
Uttar Dinajpur	75.92	24.08	71.40	28.60
DakshinDinajpur	71.76	28.24	69.64	30.36
Malda	79.34	20.66	61.20	38.80
Jalpaiguri	71.41	28.59	72.57	27.43
Darjeeling	66.84	33.16	71.01	28.99
Coochbehar	60.83	39.17	76.79	23.21
West Bengal	78.10	21.90	75.90	24.10

Source: Census Data, 2011

The table 1.16 and 1.17 jointly reveals the gender and district wise diversification of non – farm workforce. The data shows that there is a disparity among the districts. In some of the districts like Burdwan, Coochbehar, etc. participation of male workforce in non – farm activities are more than the state average. But, in some districts, like two 24 pgs, participation of female workforce is relative higher in comparison to other districts of West Bengal.

A detailed examination of the composition of the five main non-farm sector sectors in respect of share in the main workers, participation by women, employment status, regional composition and industrial classifications in the sub sectors will help us get a better insight into the process of diversification of rural livelihoods and the growth of different types of jobs in these sectors. Over 4 million rural labourers (UPSS), of whom little more than 3 million were mainly employed, worked in the industrial sector in 2009-10, and about 30 percent of them were women. More than 95% of manufacturing employees and some 50 percent of female employees are the major occupation holder. In the manufacturing sector, a majority of the workforce (PS) work as self-employees in own account companies. The participation of women in the construction industry is very low and has decreased over time. It can be noted that although the Central Plains played the largest share of the region in 1987-1988, in 2009-2010 most of the main workers in West Bengal were in the Eastern Plains. Just over two million rural workers are engaged in trade-related activities, of which about 70% work as self-employed retail workers. More than 95% of male employees are PS employees and just under 10% of PS employees are female. Transport workers have steadily increased from 0,4 million in 1988 to about 1 million in 2013, the majority of whom are self-employed and the majority work in the category of land transport with a negligible involvement by female employees of transportation workers.

Table 1.18. Share of Sub Sector in Non – Farm Employment Category

MAJOR DIVISIONS WITHIN EACH SUB-SECTOR OF RURAL NON-FARM WORKFORCE (PS)							
MFG	FOOD&BEV	TEXTILES	NON-METAL	METAL&MACHINERY	MISCELLANEOUS		
1987-88	32.99	30.80	26.51	5.81	3.88		
1993-94	48.59	19.74	22.10	5.64	3.93		
1999-00	40.84	24.22	24.24	6.11	4.59		
2004-05	37.05	24.86	23.90	6.14	8.05		
2009-10	34.82	27.30	20.21	9.16	8.52		
CON	CONSTRUCTION	ALLIED					
1987-88	99.31	0.69					
1993-94	91.75	8.25					
1999-00	82.82	17.18					
2004-05	86.33	13.67					
2009-10	90.91	9.09					
TRD	WHOLESALE TRADE	RETAIL TRADE	RESTAURANT				
1987-88	12.33	80.19	7.48				
1993-94	16.60	77.43	5.97				
1999-00	14.04	78.26	7.69				
2004-05	17.17	73.55	9.28				
2009-10	15.45	73.10	11.45				
TRA	LAND TRANSPORT	OTHER TRANSPORT	STORAGE	COMMUNICATION			
1987-88	89.53	4.73	3.91	1.83			
1993-94	91.17	3.54	0.70	4.59			
1999-00	92.15	3.09	1.57	3.18			
2004-05	94.08	0.64	1.94	3.34			
2009-10	92.62	0.07	4.55	2.75			
SVS	BANKING FIN. ETC.	PUBLIC ADMIN.	EDUCATION	HEALTH	RECREATION ETC.	PERSONAL&COMM.	MISCELLANEOUS
1987-88	5.26	23.02	25.23	5.22	0.92	28.15	12.20
1993-94	5.31	20.18	19.32	5.66	2.47	28.75	18.31
1999-00	7.26	24.50	25.08	7.94	1.09	4.72	29.40
2004-05	14.65	16.55	29.23	8.25	1.94	13.14	16.25
2009-10	12.22	14.67	26.76	7.88	1.39	15.99	21.10

Source: Census Report, 1987 – 88, 1993 – 93, 1999 – 00, 2004 – 05, 2009 – 10 http://hdl.handle.net/10603/184870

Table 1.18 shows that each major sub-sector of non-farm employment has a changing share of the diverse industries. We find food processing, textiles and non-metal products that make up over 80% of workers in the manufacturing sector but metal machinery and various people have grown fastest. A deeper study of the data showed, especially in the Eastern Plains and by the women's workforce, that Bidi is the most widely used activity in the manufacturing sector. In the retail trade sector, in particular food and food products, retail is the largest employer, but over the years, its share has fallen from 80% to 73%. In the period 1988-2010, the share of restaurants on the other rose from 7.48 percent to 11.45 percent. The composition of the SVS sector is most diverse. Here it is found that although more than 25% of the SVS employees are employed by the educational sector, their share has remained almost identical over the years.

The share of public and personal and community services has fallen from 23% to 15% and 28% to 16%, but we are seeing a 5%-to-12% increase in the share of banking financing business. The proportion of other diverse jobs has also increased.

The analysis done in this chapter presents the magnitude, growth and composition of rural non-farm employment in Bengal as well as in the seventeen major states and explores rural West Bengal's occupational structure. The researcher has tried to examine the data and to understand the gender, sectoral composition, regional variations and rural workers' quality in the state. With this background in mind, we are now going to analyse how the rural occupational structure is changing and how the share of rural non-farm jobs is growing. Simultaneously the study also addresses the quality of employment in the non – farm sector as well.

1.6. Research Motivation

A sector change is always inevitable in case of rural workforce. Generation of employment opportunity in the rural sector is always an area of concern for the policy makers. Over the period it has witnessed that most of the eligible workforce are shifting from agriculture to find alternative livelihood. As a result of which rate of migration is also in the higher side. A migration always keeps the place of origin more vulnerable as this place failed to get adequate supply of manpower when there is a requirement. Thus, it is important to understand what the dimensions are of non – farm employment opportunities, the sectors which should be focused so as to retain the manpower in their own place. But this is only one side of the coin. Along with creation of job, it is also important to investigate the quality of employment. The study develops a weighted average score to understand the diversity in rural non – farm workforce and the quality of the employment that are generated through various activities. The development of weighted average score to measure the quality of employment in the rural non – farm sector is itself a unique work and would add value to the existing field of literature.

1.7. Scope of Study

- The study covers two specific districts of West Bengal, where a bipolar growth can be witnessed. A bipolar growth means, one district has been identified with highest growth in non – farm employment and another district has been identified with lowest growth in non – farm employment.
- The study is based on census as well as primary data, which has been collected during data collection phase in the selected study district. Some amount of sampling and non – sampling error is there in the data set.
- The study covers only non – farm sector, hence, any observation in the farm sector has been ignored.

1.8. Thesis Outline

The thesis is divided into five chapters. The details are mentioned below:

Chapter 1: This chapter introduces the topic of research and a detailed idea is given based on the available facts and figures.

Chapter 2: This chapter focuses exclusively on the review of the existing literatures so that appropriate gaps can be identified.

Chapter 3: This chapter focuses on the research methodology part of the study. It is important in the sense that it helps the researcher to develop a blueprint to conduct the research.

Chapter 4: Since this is a quantitative study, an appropriate statistical tool has been identified to analyse the data collected during the survey period.

Chapter 5: This chapter deals with findings, recommendations, and conclusions based on the statistical results that the researcher derived in Chapter 4.

1.9. Summary

This chapter mainly focused on the growth of non – farm sector in rural areas. The chapter begins the discussion considering the world scenario in the non–farm segment and then narrowed it down to Indian cases and subsequently the case of West Bengal. It is observed that in most of the states of India, the growth of non – farm sector is significantly high but there is a region-specific imbalance exists. The imbalances are more visible in those states where GDP growth is higher. Over the period of time, it has been observed that role of non – farm sector has increased significantly and today, a large portion of people are moving towards non – farm employment.

But while moving towards non – farm employment it is difficult to understand the concept of quality of employment by these workforces as most of them are either illiterate or do not have any technical knowledge to grow in a job. Hence, situation becomes much more complicated. Some of the sectors like construction is absorbing a huge number of workforce but none of them have any skills. As they don't have any social security, it becomes important to understand the nature of quality employment and what is the actual situation in the non – farm sector, hence it becomes the area of research.

CHAPTER - II
REVIEW OF LITERATURE

Chapter II

Review of Literature

2. Introduction

The Rural Non-Farm Sector (RNFS), for some time neglected by policymakers, has been very attractive since the 1970s, as the rural households in the developing world are increasingly aware that they are not dependent only on agriculture for a livelihood because an increasing share of rural incomes is derived from non-farm sources. The agriculture sector offers a limited promise of creating additional employment for the growing rural labour force and the interest in the rural non-farm sector is the product of a growing understanding of its significance and possible contribution to rural livelihoods. In addition to the problems of rural out-migration and the resulting congestion of urban centers, leads to the expansion of the non-agricultural economy which is most of the time informal in nature.

Many researches in developing countries in the last 3 decades, therefore, have focused on the understanding of the rural non-agricultural sector's dynamics and growth impulses. As Fisher et al. (1997) note, no standard definition exists in relation to RNFS (internationally, or in India) and a neat classification of the sector is also not possible due to its diversity. The wording 'rural.' 'non-farm,' 'non-agricultural' and 'employment' therefore creates confusion and ambiguity. The literature. Chadha (1997) notes that although national sample survey data show how much the rural workforce works in each production sector, it is not known whether the job is in rural, semi-urban, or urban areas. In particular, the literature evaluating the significance of RNFE in India is based on two main sources of data – ten-year censuses and five-year rounds of NSS labour and unemployment surveys – but definitions of employment and classification of workers vary from one source to another, which makes a comparison problem. It is also alleged that the rural non-farm sector is grossly underestimated because of a failure to capture

the diversity of rural jobs and misinterpretation of women workers, as stated in the literatures (Hazell and Haggblade 1991; Sen 1994; Fisher et al., 1997). Hazell and Haggblade (1991) argue that the census and the NSS class 'rural' are populations less than 5 000 inhabitants, but that the figures have risen by a further 5% if rural towns of up to 1,00,000 inhabitants had been included.

The non-farm rural economy is generally referred to as all non-farm activities that generate farm household revenues by the means of wage employment or self-employment, including income in kind and money transfer. That is to say, it covers all economic activities in rural areas other than agriculture, hunting, forestry and fisheries (Lanjouw and Lanjouw, 1995).It has a negative definition, as 'non' agriculture, which includes a broad array of activities, including manufacturing, trade, transport, services, transfer payments and transfers of temporary or seasonal migration (Davis and Pearce, 2001).In RNFE, the meaning of 'rural' is vital to understand its nature, importance and viability (Lanjouw and Lanjouw, 1995).In spatial terms, there are some major problems defining the RNFE. Barrett et al. (2001) note that activities may be 'locally' in the same village or neighbourhood, (ii) in the nearby rural village or neighbouring countryside – and (ii) in the middle of two cities (b) out of the home sub-categories. These differences are especially important in terms of the level of household dependence on the local economy. In the same context, Chadha (1992) highlighted the important difference between 'rural household non-farm employment' and 'rural non-farm sector' as such, while discussing problems with interpreting the RNFE employment data. Mukhopadhyay (1985) argues that a number of conflicting literature evidence and controversies relating to the rural non-farm sector arise precisely because of the lack of a clear definition and analytical framework characteristic of its nature and position in the economic system; and a large proportion of this confusion is lost when components of the rural non-farm

are analysed. The author believes that a great deal of controversy regarding the nature and dynamics of rural non-farm operations can be resolved if the essential heterogeneity in the sector is analysed.

This chapter is divided into three sections, viz.

- Non – farm activities from the perspective of various countries in the World
- Non – farm activities in India
- Non – farm activities in West Bengal

The reviews will try to identify the nature and quality of non – farm employment in each of these three sections.

2.1. Non – farm Activities from the Perspective of various Countries in the World

Godslove S etal. (2020) found the influence of non-farm activities on rural communities' economies in Enugu state, Nigeria was examined in this report. Data were evaluated using descriptive statistics, average variables and variance analysis (ANOVA). The results indicate that household income and rural economic diversification have had the greatest positive impact, while the plants and land erosion have been the most significant and detrimental impacts on rural populations in the study field of non-farm activities. In general, in contrast to the gain of non-farm operations in the sample region the impact of negative effects on households has been poorly ranked. It has been inferred from the ANOVA findings that the beneficial effects in both groups are significantly different. The advantages, however, depended on the venue. Therefore, this study indicates that the achievement of a prosperous rural economy in the state of Enugu should depend on deliberate policies that promote non-farm operations, as they supplement the household farm income. Hajduet al. (2020) pointed out that while the agrarian change in South and South Africa has been taking a shape for many years, rural areas continue to house millions

of people, who are characterized by extreme poverty and vulnerability. Key practices on livelihoods are being studied, including paying work, reception of the Social Grant, development of horticultural and livestock resources, and cutting of firewood. Thus, these changed subsistence practices over time often vary between and within them. The key results for poor houses in the villages are that wage labour has dramatically deteriorated, and the extension of social services has avoided deeper suffering. Agriculture and the harvest of aquatic resources remain dynamic, albeit involving villagers unevenly. In another study Bate et al. (2019) explored the tourism opportunity in the small coastal area of north east coast of Africa. The natural capital played a crucial role to develop tourism infrastructure. The area also attracted lot of people looking for job opportunities in the study area. The influx of people in search of jobs also affected the ecological balance in the study area. The growth in any particular sector should be given priority without affecting the natural capital of that place. The authors argued that it is the responsibility of the government to handle the inadequate situation in the study area. Sohns et al. (2018) pointed out that businesses in developing countries have based the majority of the empirical work performed on business survival, although studies on business survival in rural areas are also rare in emerging markets. This paper seeks to resolve the void in the study by using parametric survival models with mixed results in order to explore the effects of variables on the likelihood of survival of micro companies in rural Vietnam at various explicative stages. The findings reveal that corporate variables control the survival probability of these micro-firms. However, the empirical findings also suggest that microenterprises are linked to their wider economic climate, and also add significantly to the explanation for survival probabilities for microenterprises in rural Vietnam in some locations, such as the access to markets and financial services. Mckillop et al.'s (2018) Young farmers' study has historically centered on the future of the farming region or contrasted young and older farmers' creativity, productivity or entrepreneurialism. This study, on the other hand,

discusses creativity disparities among young farmers. Innovative methods are described here as processes and practices that are more likely to contribute to improved farm production and profitability. The findings showed the gaps between young farmers' real creativity on the farm and what topic specialists consider 'significant.' Young farmers have been found to vary in their creative scores, which apply to various fields, such as productivity in general, breeding, IT, or output monitoring. Due to the relatively low number of young farmers in many EU countries, including Ireland, research and extension organisations, instead of the current widespread approach which fails to distinguish their interest from that of the older generation, should create programs, adapt discussion groups and concentrate learning on specific types of young farmers. To maintain robust and focused course programs to encourage growth, agricultural education suppliers need to understand these distinctions. In another study, Chand (2018) mentioned that globalization is the key motivating factors behind growing inequality, especially in emerging countries, as is evidenced by the rapid growth in foreign trade, financial globalization and technological transition, particularly ICTs. Such technological advances usually increase the demand for skilled labor, which in these economies is poorly supplied and widely divided between regions and social classes. In India, a lack of public infrastructure spending is responsible for the failure to make good use of the possibilities that globalization opens up, resulting in increased geographical and rural-urban inequalities. Raising public infrastructure, schooling and healthcare investments and giving sufficient priority to agricultural, rural non-farm and manufacturing development is necessary in order to mitigate inequality by adequate job opportunities. In advanced democracies that have experienced rapid structural change, there have been increasing inequalities. The institutional democracy architecture must be redesigned so as to embody the social long-term desires for justice and fair play more appropriately. As faw et al. (2017) in their study mentioned that in minimizing hunger and in the face of negative effects of climate change, the diversification of livelihood sources for subsistence farmers

outside cultivation plays a major part. The inter sectoral survey study design was used to analyze the factors determining involvement in non-farm activities by rain-food-based small holders using mixed methodologies. The main restrictions that prevented farmers from pursuing non-farm activities are access to sufficient resources, inadequate infrastructure and lack of preparation. Bolt (2017) focused on changing pattern of agricultural works in Southern Africa. Agricultural work appears to invoke the past rather than other forms of jobs in Southern Africa. However, recent events have as well as racialized hierarchies in plantations have followed economic integration and cost-cutting accidental ties. Farmers' paternalist legacies, which were shaped by workers' homes on the ground, have changed agriculture work participation. Mao et al. (2017) used the 2011-12 Chinese Health and Retirement Longitudinal Study (CHARLS), which discusses how caring for grandsons and vulnerable parents has an effect on off-farm Chinese rural middle-aged adults. The results suggest that the treatment of grandchildren has a negative effect on rural middle-aged men and women's involvement in off-farm jobs and working hours, according to socio-economic and demographic characteristics. Parent care should not influence off-farm jobs and working hours in the same way. In addition, the study showed that annual compensation was also influenced adversely by treatment for women and men caring for grandchildren. In a new study Sarkar et al. (2016) discussed that the role of rural non-farm work is widely acknowledged as it grows as an increase in the overall income of rural households. Though rural non-farm income contributions are measured primarily by means of the output approach, the underlying determinants of rural household participation are rarely evaluated in terms of who and where will participate and how personal, family and local attributes affect individual capacities and opportunities. The involvement of household members in rural non-farm jobs was evaluated using a logit model and found that the skill level of the member of the household was the most powerful factor for deciding rural non-farm jobs. Other factors, such as the availability of cultivable land, the overall income of

the individual, the distance from para to the nearest hat/bazar, also played a significant role. More focus is required for capacity development of rural people in special trade with provision of credit and marketing facilities, in order to encourage rural non-farm jobs. This will entail the updating of the existing government and non-governmental training programs, which operate at local levels, i.e., close to rural development centers and rural bases. Tschirley et al. (2015) aims to explain how the evolution of jobs in the agri - food system (AFS) and between the food system and the rest of the economy will affect the evolution of food transition in East and Southern Africa. It also considers briefly the consequences for training and learning of skills. The authors connect shifting diets with the framework of jobs. In order to establish scenarios of shifts in the job system, the writers use alternate estimates of dietary transition in 15 and 30 years. As long as ESA's sales continues to grow similar to that of the last decade, their economies' transition is possibly advancing drastically. The key characteristics would be: a sharp decrease in the share of workers employed in agriculture, even though absolute figures grow modestly, a sharp increase in the AFS share, and an even sharper rise in the share taken beyond AFS. In addition to food processing, marketing, transport and other AFS services, it is likely that the AFS food preparation outside the home will expand more quickly. Agbonlahor et al. (2015) focuses on the rural non-ferrous practices that will address insufficient access to credit and lead to a reverse reduction in agricultural output and productivity by subsidizing agricultural production. The study of Tobit regression showed farm sizes, farming experience, farmers' dependence ratios, rural infrastructure on roads and the position of the native population as factors affecting the RNFI share of crop production investments. Nathan et al. (2014) aims to describe the household income structure in a comparatively established rural region of the Malaysian Rice Bowl and to investigate the role of non-farm income on the income distribution of farms. Almost 71 percent of the households in the study were considered to begaining non-farm income from at least one source. The overall household income was

averaged by non-farm income in the order of around 33 percent. Farm less wage jobs represented about 26% of the general household earnings, the dominant source of non-farm wages. The farm revenues, particularly those generated by paddy, have been found to be the source of inequality. The report further supported the assumption that non-farm revenue was the root of inequality because it contributed up to 35% of total income inequality. Hitayezu et al. (2014) mentioned in their research that despite extraordinary attempts by the post-war government to spur rural non-farm (RNF) development in Rwanda, there has been little involvement in Rwanda compared with other developed and transitions economies. This study examines the micro and meso-level factors which define the capacity and incentives of farm households to participate in post-war Rwanda RNF work. Results show that the likelihood of participation in RNF activities increases for women dominated households, level of education, social networks, access to finance and increase of rural towns which normally act as a market, while the time allotted for RNF activities is tended to reduce with age, earth productivity, distance from the market and scattered settlements for participating households. Sur et al. (2014) gives an outline of Pakistan's profile of village and small-scale firms on the basis of a major survey of companies. While the business sector appears to be not especially dynamic, the statistics show that jobs in this sector have risen. The estimated annual increase in compound jobs in village and small-town companies was around 1%. Access to structured financing, financing costs and cumbersome procedures pose major challenges in Pakistan for rural entrepreneurs, particularly with regard to long-term investment funding. There are also significant barriers to access and efficiency of power supplies, publicity issues and transport-related problems. These challenges have a detrimental effect on business competitiveness and the investment level of existing businesses and prevent start-ups. Sivasubramaniyan (2014) described the government initiatives to describe the importance of skill development to increase the non – farm employment opportunities. In many areas of our country, poverty and

unemployment lead to sluggish growth. To solve this dilemma, appropriate opportunities need to be provided for unemployed young people with adequate skills. In 2007 the Ministry of Rural Development and the Government of India launched training programs aimed at poverty alleviation and job creation. With the help of departmental funding, the IL&FS initiative (2007) is aimed at catalyzing, facilitating, and managing broad, demand-based training and placement programs, with a two-pronged objective of promoting poverty alleviation in rural areas and meeting the needs of various industries its development and development of Infrastructure Leasing and Financial Services. The report assesses the standard of trainees' facilities, the feasibility of post-training and the monitoring mechanism, identifies the degree and reasons for abandonment and recommends steps for better training. A random sampling of qualified personnel is the basis for the methodological interpretation of the study. The research findings showed that in the countryside of three states of Tamil Nadu, Karnataka and Andhra Pradesh, where the study has been carried out, the twin goals of reducing poverty and meeting skilled labor requirements of diverse industries is achieved. Chikhuri's (2013) research uses the GTAP model, a globally competitive, generally applicable equilibrium model, to analyze the effect on food security issues of multiple trade and agricultural support policies on the poor of Sub-Saharan Africa. Two liberalization scenarios are evaluated based on the recommendations made at the present round of agricultural talks in terms of market access and export competitiveness, plus a benchmark for free agriculture trade. There are unclear findings from the strategies for alternative trade liberalization of main food safety indicators in the SSA region. The effects will vary based on the degree of liberalization and also the sectoral competitive gain of the SSA community. Senadza's (2012) paper uses a multinomial approach to analyze the determinants of different revenue methods followed by rural Ghana households. Results show that household features, place and facilities play a role in explaining the acceptance by households of revenue policies rather than a solely on-farm policy. Education is

a primary determinant of non-farm work income strategies, while access to credit and energy is an essential element of non-farm self-employment income. The paper's findings call for promotion of the possibilities of off farm revenue to augment agricultural revenues and increase rural households' access to these revenue streams. Liu (2011) research begins with a model of alternating generations. The role of human capital in diverse occupations – it does not affect farmers' incomes; it has a linear effect on employee salaries and increasing returns in rural non-farm businesses. The paper then derives wage profiles for people with heterogeneous human capital and identifies the occupations' human capital thresholds. This paper calibrates China's model and simulates the model to address two questions: how does an improved allocation of human resources impact rural incomes, migrant volumes and migrant returns? What does rural employment, numbers of migrants and refugees' impact as an increasingly increasing urban pay rate? Next, measures to develop human capital may have varying consequences on migration, depending on the original human capital level. These policy initiatives would create more permanent migrants if the initial level of human capital is low; instead, if the initial level of human capital is comparatively high, then a diminishing constant migrant class with an increasing market class may be expected. In his study Mottaleb (2011) mentioned that there is growing awareness of the role of rural non-farm economic activities in creating jobs and income opportunities for rural poor people in Bangladesh. Around 40% of working employees in the Bangladesh Rural Region work in the non-farm economic sector, with a contribution of 36% to the overall GDP of Bangladesh. Almost no awareness is made of the rural craftsmen, who work with the rural non-farm economy, despite its tremendous contribution to providing jobs and producing revenue. Handicraft bamboo is one of Bangladesh's oldest non-farm companies. It has provided rural poor and distressed women tremendous work opportunities. It is noticed that many bamboo artisans simply use age-old innovations to manufacture conventional household products. Most craftsmen are less skilled and less familiar with modem

education and latest marketing knowledge, so the enhancement of product quality is rarely feasible. There is hardly a new entrance of the new craftsmen. The craftsmen had much difficulty with the high raw bamboo prices. The paper recommends that bamboo craftsmen be better educated on development and marketing of their products based on the results of the study. It suggests also disseminating the new information on bamboo bushes planting and feeding, and raw bamboo preservation and care. In the end, the paper proposes a public-private collaboration to develop the Bangladeshi bamboo industry. In another study, Kwai et al. (2010) offers a comprehensive overview of rural Tanzania's livelihood diversification, with a specific focus on small-scale and artisanal mining. In the past decade, this labor-intensive segment of manufacturing has become an indispensable economic activity in sub-Saharan Africa and includes a number of primitive and semi-mechanized operations, giving a variety of jobs to redundant employees in the public sector, retired large-scale mine workers and poor farmers. As the primary sector, subsistence agriculture is overtaken in many rural areas of the country. The Morogoro and Mbeya regions of Southern Tanzania continue to develop such a trend and results of recent studies indicate that an increasing number of small-scale farmers turn to handcrafts, mining, and financial help. This pattern should be taken into account and sponsored by national rural development initiatives. Nerys et al. (2006) described the roots and approaches of the hypothetical analyses follows a general summary of the economic issues and their manifestations in the case study of Mid Wales. A consortium of policy makers and developers pursuing a formal scenario creation program was interested in the implementation of the technology. The resulting situations are summarized, their importance for support of businesses and larger consequences. The study of scenarios enhanced a joint awareness of the challenges to small business development and economic recovery by helping core players to discuss and face significant uncertainties. Similarly, Ahmed (2006) provides an analysis of the status of the rural non- farm sector (interchangeably tensed as RNAs and/or RNFE) in the Asia

Pacific countries, on the basis of a detailed review of existing literature. The RNAs form a remarkable segment of the rural economy, which provides 30% to 60% of rural household income and employment in rural Asia. They are broadly diverse, distributed around villages and rural towns and distinguished by dualistic characteristics that demonstrate both dynamic and residual categories of activity. Though RNAs have a differing trajectory of economic growth, agricultural production, urbanization, rural-urban connections and rural economic growth are the main drivers of such growth. There are mixed reports of the impacts of RNA growth and rural poverty and deprivation, but existing publications take an optimistic view of these activities' economic contributions as a tool for increased rural development, for reducing poverty, reducing the differences in rural-urban income and in migration and general domestic economic growth. In a research work Tudor et al. (2006) discussed the effect of off-farm jobs on the process of marketing agriculture in Romania. The study of descriptive and association indicates the presence of a significant relationship between off-farm and farm transactions. The low numbers of households selling agricultural products and high sales of them per household are associated with high off-farm employment, which mean that specialization and trade farming are not available in regions with farms. Indirect impacts of non-agricultural workers on agricultural revenues are also achieved by higher agricultural labor production and easier access to credit. In addition, commercial farms spend heavily in agriculture, while promoting marketing. Eftekhari et al. (2002) argued that rural industrialization has, over recent decades, been one of the main strategies to encourage rural growth in developed countries. Rural industrialization in rural areas has been argued for its major socioeconomic consequences. This thesis tries with the aid of industrial clusters in the Markazi province of Iran as case studies to investigate the developmental impacts of these clusters. The authors identified that the creation of industrial clusters are able to improve the standard of living, increased consumption of nutritious food items, increased participation in decision making process. Thus, the positive

impact surely affected the lives of rural poor. Johnson (2002) mentioned that if the rural families of China want to be completely involved in future economic development, the number of farm employees must decrease considerably.12–15 million new non-farm jobs would have to be generated every year to meet the decline needed for the next three decades. One problem is that they are very tiny—industrial companies employ about 11 people on average. The more dynamic China's economy, the smaller companies are increasingly struggling to retain employment, not to mention creating millions of new workers per year. There is an option to encourage business growth in one or two towns or small towns in each district. The employee will then remain in the villages and travel every day to their work. It needs much less money if equal numbers of workers moved to the city with their families. Machethe et al. (1997) presented a policy analysis agenda to foster farm and non-farm linkages in South Africa in the report. The author's hypothesis is that the promotion of the involvement of SMEs in these connections would have a strong effect on jobs and income of the vulnerable groups. The authors were able to identify the linkages. A link with the market through technology and training through educational institutes helps to improve employment opportunities in the non – farm SME sector. Kirsten (1995) suggested that the degree to which the creation and promotion of small rural non-farm companies will serve as a tool for rural development and poverty alleviation must be determined. This paper offers an overview of the diversity and actions of non-farm enterprises in rural areas of the northern and northwest provinces as a first step towards establishing an Empirical Structure to explore the linkages between rural growth and the rural Nonfarm sector in South Africa. Based on the assessment contained in this report, the rural non-farm economy seems to lack variety, with full command of trade and services related businesses and a relative absence of small rural industries. Lastly, Ahmed (1993) discussed the importance of rural enterprises to the Chinese rural economy's modernization process. The rural industries in China have experienced tremendous growth in the time

following the reform ranging from 20-25 percent and have played a key role in absorbing surplus rural jobs, growing rural households' job and income status and in facilitating the development of a new industrial base in rural cities. Rural industry economic dynamism in China was the product of the government's stimuli in the post-reform period to improve the business economy and private sector environment. For agriculture-dominated emerging Asian economies, the Chinese experience of rural industrialization seems instructive, as they face problems of excess labor absorption, improved wages and living conditions for the rural poor and retain fair restrictions on rural and urban migrations.

Mulia et al. (2021) reports that rural households in Asian developing nations such as Vietnam have been engaged in non-agricultural activities for decades, but little is known about the consequences of these activities on factors other than the rural households' economies. Using evidence from the literature and two case studies from rural Vietnam, this paper demonstrates how non-agricultural activities have a variety of social and cultural repercussions. The most common consequence reported in the research was an increase in social tension produced by a rising economic disparity between poor and rich households or between ethnic majority and minority groups. The case studies reveal that there are also additional implications, especially on public safety, the preservation of local culture, and the protection of farm households with migrants during and after disasters induced by climate change. The second and third consequences were largely induced by the fact that more young migrants left family farms to get jobs in other fields. Vietnam's strategies for rural development and eliminating poverty from 2000 to 2020, which encouraged people to have more than one source of income, didn't do much to deal with the social and cultural implications of non-farm activities. To make sure Vietnam's rural development is sustainable after 2020, these two types of policies need to be revised, or their execution has to work better with other types of policies, such social policies.

In their study Zheng et al. (2022) mentioned that Non-farm employment and expenditure on mechanisation services are jointly determined, according to the empirical data. The study concludes, in particular, that non-farm employment dramatically raises mechanisation service expenditure. An estimate that models a binary choice between using mechanisation services provides additional confirmation of the findings. Non-farm employment's interactive effects on mechanisation service expenditure vary significantly by household size and gender of the household head. In addition, the number of people in a household working outside the home has little to no bearing on the amount of money spent on mechanisation services; (2) local non-farm employment, rather than provincial non-farm employment, has a greater impact on mechanisation service expenditure; and (3) the number of people in a household working outside the home has no bearing on mechanisation service expenditure.

Table 2.1. Summary of Topic-wise Literature Survey on Non – farm Activities from the Perspective of various Countries in the World

Sl. No	Broad Topic	Type of literature surveyed			
		Articles (43)	**Theses/ meta analysis (0)**	**Seminar proceedings/ books (0)**	**Total Relevant to my topic**
1	Decline in wages and increase in wage inequalities during post reforms period	Journal Article			Quantitative aspect of employment generation in the rural non-farm sector
2	The author described the role of natural capital in non – farm sector	Journal Article			Capital requirement to create employment

					generation is crucial
3	This paper seeks to resolve the void in the study by using parametric survival models with mixed results in order to explore the effects of variables on the likelihood of survival of micro-companies in rural Vietnam	Journal Article			Employment generation depends on development of entrepreneurial activity
4	This article, on the other hand, discusses creativity disparities among young farmers	Journal Article			Lack of creativity in productive activities creates problem in improving non–farm employment
5	Globalization forces to adopt new technologies which created new demand for skilled workforce	Journal Article			Lack of creativity in productive activities creates problems in improving–farm employment
6	Climate change diversified the livelihood aspects of the farmers	Journal Article			Changing job opportunities because of external factors

7	The study of descriptive and association indicates the presence of a significant relationship between off-farm and farm transactions	Journal Article			Depicts the impact of farm activities on non – farm activities.
	Small companies are increasingly struggling to retain employment	Journal Article			Lack of skills affecting the quality of employment
9	Growth of non – farm sector helps to absorb workforces	Journal Article			Systematic growth is required to absorb excess workforce

2.2. Non–Farm Activities in India

Chatterjee (2020) mentioned a case where State acquires agricultural land for an industrial area in Maharashtra, India, and examines the non-farm trajectory for deportees. The empirical example will be the perfect one to observe the prospects for the dispossessed rural landlords in capitalist times of a classic "transition" to factory work. The production center that is being established offers precarious manual work opportunities for male and female workers of the Scheduled Caste and Scheduled Tribes. The empirical analogy is the best one to take into account the opportunities for the deposed rural landlords of a classic "transition" to manufacturing in capitalist times. The newly created development center gives the men and women of the Scheduled Caste and Scheduled Tribes insecure manual employment

opportunities. In another study Majumdar (2020) Rural transition has been historically thought of as modernisation, rural growth, changes in the urban system, and demographic transfer from the agriculture sector to non-agriculture economic sectors. Along with human factors, there is a need for growth in the infrastructure sector as well. In their article Khurana et al (2022) mentioned that electricity's role in the formation and performance of rural non-farm entrepreneurial ventures is hotly debated. The purpose of this research is to determine how access to household electricity influences rural households' decisions to engage in entrepreneurial activities within their own homes in India. Using panel fixed-effects logit models, a panel dataset of nearly 20,000 rural households collected in 2004-05 and 2011-12 was used to investigate the impact of access to electricity on participation in rural non-farm enterprises. Furthermore, the impact of electricity access on non-farm enterprise earnings is investigated using Heckman two-stage selection models. Various analytical methods were used in the study of rural transition, and various measures examined the extent and degree of rural change/transformation included in these approaches. The rural development strategy in the analysis of rural transformation was criticized for not always containing development. This essay analyzes the Indian experience and argues that the rural development of India involves migration from agriculture into the non-agricultural field and a de-agrarianization of the Indian economy. Alha (2020) argues that improvements in the Baspur village economy were driven by the increased integration of the village with the outside world, enabled by better connectivity and transport modes. Over the years, non-farm work development has been a big factor in the growth and income distribution in the village economy, mainly casual and informal in nature in the form of migrant workers. This has drastically reduced rural households' reliance upon agriculture along with already existing migratory sources that are considered important in terms of sustaining livelihoods. This can be seen in men's refusal to conduct farming work, a reduction in the number of land leases in the village, and a steep increase in farmers’ incomes

over the years. In a significant study Melo et al. (2020) discussed the importance of skill development to improve the employment scenario in the rural non–farm sector. The level of involvement in education and its job impacts in Dibang Valley (Arunachal Pradesh) is analyzed on the basis of primary data from 200 families. Participation in the preparation for skills is found to support workers in the non-farm market. However, training in skills acquisition for one year has been more successful than training for less than one year in terms of job creation and income production. In their study Sahoo et al. (2020) aims to research the improvements in rural poverty and its relation with the post-reform increase in agricultural production for Odisha. For the class analysis of rural poverty, the rural household classification (occupation groups) of National Sample Survey Organization (NSSOs) was used from the unit-level Consumer Expenditure Survey (CES) results. During the post-reform era, the Odisha economy experienced a strong growth in Net State Inland Product (NSDP). During the 1990s, the state saw a negative increase in agricultural productivity, less rural poverty and a distress in occupational mobility from the agricultural to non-agricultural sectors. However, the farm sector reported high growth, higher reduction of rural poverty and job mobility in the farm sector in the next decade. In the 2000s all rural occupational classes have experienced higher monthly per capita spending (MPCE) growth and rapid reductions in rural poverty. The development of the agriculture sector is therefore the key catalyst in Odisha to reduce rural poverty. Sen (2020) examines shifting living standards from 1993-1994 to 2011-2012 in rural Indian areas, which are also aligned with the on-going economic reforms. These modifications may either be due to changes in the development component or to changes in the equity component. The paper therefore explores, through a scheme of algebraic decomposition, the impact of the growth and distribution components on changes in the living levels and their relative function. It also examines the impact of socio-economic influences on living standards through econometric models. Data on consumer expenses was used for this study by National

Sample Survey Organizations for 15 major Indian countries. The findings show that living conditions in rural areas in all of the Indian countries have increased (actually). More than compensates for the negative effects of distribution and positive improvements in certain countries in the positive growth effect. This article also states that rural physical infrastructure growth, educational achievement, farmer income per person, non-farm jobs and livelihood diversification are the key drivers of the positive change in living conditions. Singh (2020) mentioned that in the midst of growing agrarian distress, rural non-farm diversification in India is taking on a new position. In the context of this paper two issues were examined: firstly, the essence of rural diversification without agriculture, and, secondly, the accessibility of households in Bihar and Punjab for rural non-farm work. The report is mainly based on the data from the latest round of the Agricultural Houses Situation Assessment Survey (NSSO). Findings show that while landless and marginal land households are mainly engaged in non-farm activities in both states, there are some lucrative options available to major farmers in Punjab. Overall, caste, sex and education are the dominant factors which prevent rural households from joining. The conclusions suggest prioritizing structural changes and public policies in the context of producing viable livelihoods from non-farming while removing multi-dimensional exclusion from rural labor markets, taking account of regional conditions. Saha (2019) critically analyzed the rural employment generation in the state of Rajasthan. The National Rural Job Guarantee Act (NREGA) was formed in India in 2005 with the associated NREGS schemes to provide social and food security for rural workers who are socially and financially depressed. It is now established that the introduction of this scheme in entire India, with major differences in various states and places, is not equally satisfactory. This article examines the workings of the scheme in rural Rajasthan based on extensive fieldwork over one year in far-off villages in the Deogarh and Bhim blocks. It recognizes and analyzes three main blocks in successful NREGA implementation: prevalence of caste-based inequality and social

relations between various rural population groups; unequal job preferences among potential workers and lack of panchayat initiatives. Moktan (2019) discussed the quality of employment to reduce income inequality. India today faces one of the main obstacles in providing high-quality work. There is also a significant and growing decent labor shortage even in areas with fast per capita growth, which is exemplified by the Gujarat neoliberal model for state-sponsored technical progress. In reality, the decent job deficit is rising in India more broadly, leading to 'development-free growth' or 'non-inclusive growth.' This paper examines job quality in India in sub-state and between rural and urban areas with the use of 3 decent labor measurements, "economic potential," "social security benefits," and "social dialog." This paper discusses the quality of employment in India. The inference is that economic development did not substantially add to the standard of jobs. Although the job opportunities in developing countries are considerably greater, social security benefits and social dialog coverage between ordinary wage/salary jobs are substantially less covered in these areas than in underdeveloped regions. Indeed, job opportunities in rural areas are much greater, and the status of jobs in urban areas is not much improved than in rural areas. In addition, the gap in job satisfaction around sub-national areas has improved or stayed constant over time. In a similar line Rahman et al. (2019) discussed the issue that how far non–farm income affects food security? Diversification of livelihoods by larger non-farming activities was seen as an effective mechanism for driving development, reducing rural poverty and the farm revenue in developing countries. However, the effects for health outcomes, including dietary diversity, remain little understood. By conducting a diverse country panel survey on rural households in India and the light at night as a tool to understand the theoretical assumption. To help farmers survive on non-agricultural income, the authors have found that the overall expenditure on foods, in particular on non-cereal products, are more if the workers are engaged in non–farm income. This is because these income gives them extra earning and the same is being spent on nutritional food items. In

another study Apte et al. (2018) The authors discussed the overall employment trend in India both in farm and non–farm sectors. This article analyses labor, work and unemployment patterns in major Indian countries from 2000 to 2012 using NSSO data. The authors noticed that in the first quinquennium of the 21st century, economic growth accelerated in most of the states where it was sluggish. This paper looked at workforce, wages and labor patterns and within the second quinquennium, these patterns reversed. The deceleration in employment growth was largely motivated by decreases in rural female employment in almost every region, and the retreat from the labour market in terms of correlations could not be entirely explained. This article illustrates, and also highlights the need to boost employment data and increase their frequency (2018) discussed the aspects of inequality in the labor market and policies to mitigate them. In the industry, incomes and earnings, quality of jobs, the access to the job market and linkage between centralized and disorganized industries are all concerns with inequalities. The segmentation of the Workforce is another critical inequality problem. For the sustainable growth, reduction in poverty and increase in human development in India, rising labor market inequality is significant. The elimination of workforce inequality is essential for macro-policies, sectoral policies, skills-related policies, education and social security policies. At the global level, technical changes have contributed to the growing differences in the workforce between professional workers and non-skilled workers. India must be prepared for and involved in the technology transition. In order to minimize inequality, the world has to face the "fundamental challenge" of developing human capital for all jobs. In order to resolve growing inequality, problems of the political economy must be discussed. Mishra et al. (2018) concentrated on the issue of movement of the workforce rural farm sector to non – farm sector and the characteristics of these workforces. A detailed study revealed that the rural job system of the Indian state of Uttar Pradesh transformed workers from farm to non-agricultural sectors, which relied on the characteristics of each region. The proportion of non-farm employees has

been gradually increasing, in particular in the building sector. Castles/Scheduled Tribes or Other Backward Castes represented almost 90% of casual workers. This study confirms the fact that the transformation into casual workers of farmers, particularly small and medium-sized farmers, implies a diversification caused by distress. A multinomial regression in logistics indicates that women and staff with lower levels of schooling and higher holdings are less likely to be engaged in non-farm operations. In their study Roy et al. (2018) highlighted the labor market conduct of rural India in order to evaluate shifts in the employment structure and to define factors influencing rural labor supply improvements. This article seeks, in particular with micro-level proof of feminization in agricultural activities by labor supply estimation, to resolve the contradiction between absolute decreases in workforce, in particular rural women at the national level. Therefore, care must be taken in promoting initiatives such as youth enterprise in agriculture in order to sustain youth in farming and in the development of innovative machinery and tools that are feminine-friendly, and in organizing skill-building programs that focus rural women workers. Bordoloi (2017) discussed the growth of rural non – farm sector under capitalist structure. Rural non-agricultural/non-agricultural (RNFS) market, which offers jobs for a significant number of people in the global periphery, is a major scene for policies on alternate rural development strategies. RNFS is an alternative rural field for the generation of jobs and enhanced wage conditions that contribute to the empowerment of rural labor force in the current literature. Instead, this paper claims that the growth of the RNFS in countries such as India is basically the development of market ties in rural yet non-agricultural regions, under a capitalist environment. The RNFS is promoted alongside policies to promote a fluid mode of capitalist development, geared towards exportation, as part of global neoliberal structural reform programmes. The paper is focused on the export-oriented coir industry in Kerala, India, which seems to be a significant type of rural non-farm jobs. This analysis provides a new perspective into today's fluid capitalism, by means of the class,

category, and caste distinction, to re-create the logic of classical labor relations to achieve its objectives of benefit extraction. In their study Nakajima et al. (2017) explored the impact of money, human capital and the social group on farm household jobs and income to understand the process behind the recent rising diversification of income in rural East India. The findings suggest that the allocation of high-return jobs is positively influenced by wealth and human resources, whereas low caste workers are more suspected to work in casual low paid jobs, partially because they rely on personal networks for jobs. There is no convincing indication that the social community is linked to earnings. In another study Sharma (2016) aims to explain how the mechanisms of the diversification of livelihoods have influenced Jammu/health. Kashmir's. The article uses primary data to achieve the goal. The regression analysis indicates that diversity, considering the location, raises household income. Higher education and a riskier resident have a positive impact on the overall income of the family, while less household employees, daily caste (SC) and household headed female have a negative effect on earnings. The study shows that a favourable climate needs to be created to dynamically diversify the national rural economy. Pandey (2015) discussed the rural farm and non – farm linkages in Uttar Pradesh. Given the growing importance of the links between growth in a State such as Uttar Pradesh, 'farm and non-farm links' seem to be a viable solution for rural non-farm sector growth. Using Uttar Pradesh Rural as a case study this study discusses the current output and consumption trend between rural and non-farm sectors and their functions for the growth of rural non-farm sector (RNFS). The study found a significant role in the growth of the rural non-farm sector in Uttar Pradesh for farms and non-farm crops through backward development ties. However, the growth of the rural non-farm sector in Uttar Pradesh is significantly influenced by customer relations. The primary survey results discuss additional prospects for RNFS development through future connectivity of output and rural-urban connections. Finally, fostering rural small-scale enterprises, building institutional ties among agriculture and rural

non-farm sectors and support policy for rural entrepreneurs are essential to support the Uttar Pradesh's rural non-farm market. Kathuria et al. (2015) explores the connection between poverty incidence and rural workers' dependence upon the informal sector. The authors find that higher incidence poverty in rural areas can in any way be explained by low incomes in the region until urbanization and other influences have been regulated. In this market, the potential of job growth is constrained given the small scale of the formal sector and its significantly lower employment elasticity. The article concludes that the reduction of rural poverty calls for an increase in the status of informal sector by way of allocating minimum wages and skills. Pandi (2015) conducted his research in Rural Tamilnadu by field studies to understand the factors influencing the decision of rural workers' part in the non-farm industry. The study was conducted in Dindigul, Karur and Tiruchy districts, with a total of 240 employees comprising 143 pay jobs and 97 self-employed people. The self-employed non-farm employees happen to be earning higher than non-farm wage workers. The multinomial results provide observational support that nonfarm involvement is largely based on push but not pull variables at work. No important factor was found in the explanatory variables such as age, education level, population, family size. However, RNF jobs are determined by their variables such as marital status, travel distance, land ownership, borrowing and livestock. Das et al. (2013) The authors in this article discussed the importance of rural urban linkages for better economic development. The links between rural and urban areas are still very similar and complicated. However, it is not helpful to make proper use of the links between the rural and urban areas. It is necessary to reinforce the connection between rural areas and urban areas to counter this and ensure the growth of the rural economy. Studies have shown that supporting and strengthening food industries is a key element for reinforcing rural-urban links in rural-economy growth. In this paper, an attempt was made to explore ways to enhance rural-urban relations through the promotion of an interface between agriculture and industries to improve the rural economy in

Assam, a northeast India province. The paper ends by calling for more food processing industries to be created in Assam in order to reduce the rural-urban divide and to ensure rural economic growth. Mishra (2013) discussed the growth of rural non – farm employment during pre and post reform period in India. Rural workers in India are known as similar to agricultural jobs. Over the years, the non-farm rural sector has become increasingly important to provide the increasing rural population with profitable jobs and additional revenue. Work diversification, away from farming, i.e., agriculture and partnership activities in support of non-farm rural activities has created significant interest amongst the researchers. The status and development of rural non-farm workers in India is therefore important to understand this diversification. The present report examines the trends and patterns of rural non-farm employment in India prior to and after reforms. It reveals that the sector has grown over a long time both in terms of generating additional job opportunities for rural employees and as part of the rural net domestic product. Since India is still struggling to get rural workers out of agriculture, rural non-farm operations need to be adequately lucrative to draw rising rural workers. In the assessment of quantum jobs in the rural non-farm sector an analysis of the obstacles to entry into the sector and also the various activities performed by each state or area and the study reveals that improvement in skills, technology and marketing is needed for the growth of rural non – farm sector. Pattanaik (2013) also discussed the employment intensity of growth in India. Given the challenges posed by globalization, new questions exist about the Indian economy's ability to adapt to structural changes and how to promote a more dynamic and competitive environment which promotes productivity improvement and the creation of new jobs. There are however some key issues which need to be answered in the examination of the problem of work intensity: the dynamics of economic development and what sectors and sub-sectors produce more jobs in terms of productivity growth; and these industries have adequate priority to reach the employment target? The results indicate that a beneficial

macroeconomic climate and changes in the operation of labor markets and institutions are vital if the Indian economy is to adapt to globalisation. Reddy (2013) mentioned that the impact of rural credit on occupational diversification. India has been recognized as one of the world's fastest rising economies for the last two decades. But, in particular rural areas, the rate of development is not mirrored in increasing job opportunities. In rural areas, the vast majority of labor is concentrated in farming and other low-productivity operations. Hence, the sort of diversification of rural jobs in rural Southeast Asia is not evident in India as part of the growth process. This article analyzes the experience of rural diversification, particularly in the Swarnajayanti Gram Swarojgari Yojana, with reference to the credit flow (SGSY). This paper examines the increasing population pressure in rural areas and the growth of agricultural labor force and analyzes the role of non-farm in rural diversification in a wide way, as well as the situation of rural, non-farm and non-farming enterprises in India. He then analyzed the loan issues of micro or small businesses. He concluded with the fact that the need not only to improve the provision of credit to rural households to generate income but also to enhance the demand side by strengthening the potential and adequate institutional structures of rural households. Awasthi (2012) discussed the pattern of rural non – farm employment in the state of Uttarakhand. The household level is dependent on non-farm sources of jobs and income. It is evident from the given fact that a large proportion of household income comes from non-farm sources. There is a positive link between higher participation in non – farm employment and house hold income. Women members are not participating in non – farm jobs. Their involvement is limited and restricted to household and farm sector jobs. A wide range of occupational divisions, castes and classes of land are present in various geographical units. Such diversity does not exist only in terms of share of employment, but even in terms of revenue streams. The field level statistics amply confirm a strongly gender-sensitive system of employment in rural areas as women work predominantly in farming professions, while their

males work in non-farm professions. Regression findings showed that a higher share for non-farm jobs and a higher region for horticulture, which contributes more to explaining regress and, positively and dramatically influenced household monthly per-capita income. In his study Pandey (2012) discussed the overview of rural non – farm employment in Uttar Pradesh, India. In rural Uttar Pradesh the pressure of agriculture has not been diminished by growth in industry and services. Though there has been a rise in rural workers' involvement in non-farm economies, rural non-farm jobs in all the districts of Uttar Pradesh are limited and not identical. This paper examines the scenarios for Uttar Pradesh's rural non-farm economy. It assesses the contribution of rural areas to overall district-level gross state non-farm domestic product. A multiple regression analysis was conducted to evaluate both individual and district determinants of rural non-farm jobs. The study recognizes the important role played by rural non-farm employment in poverty reduction, and finds that the variations of rural non-farm workers in Uttar Pradesh have been greatly explained by infrastructure services, efficiency of agriculture, agricultural trade and household features variables, individual-related factors. Similarly, Mishra (2010) pointed out the impact of globalization on rural employment. A topic which was frequently debated in literature was the mechanism of globalization and opportunities for rural workers. The post-globalization period saw a significant transition from farm to non-farm. The paper attempts, on the one hand, to analyze the movement towards rural jobs and, on the other hand, to relate the effect on education on the involvement of workers in a particular age group. Bhaumik (2007) examines the growth of the rural non-agricultural sector in India between 1983 and 2004-05. In particular, in the periods pre- and post-economic reforms the author discusses the occurrence and development of rural non-farm workers in India and its 15 main states. In the post-reform era, author analyzed not only the composition of non-farm rural jobs, but also the developing sub-sectors of the non-farm rural economy. In order to understand the rapid job diversification in rural India during the time of economic

transition, the author also compare the growth rates of farm and non-farm employment. In his article Pradhan (2005) mentioned the weakening rural labor patterns in the Indian economy in the globalization period of the 1990s are highlighted. The paper examines problem areas such as agriculture and non-farm, rural infrastructure, industry and direct employment schemes, government decentralization, reduced opportunities for rural women and free trade in agriculture. This paper proposes strong policy decisions aimed at modernizing the rural economy and stimulating rural employment. This would lead to significant investments and their incorporation into infrastructure growth and true decentralization in the agricultural and non-agricultural sectors. Singh (2005) also tried to discuss the marketing angle of rural non – farm products from the perspective of State of Gujrat. Until recently, the field of inquiry for rural non-farm businesses and goods remained somewhat ignored. However, it is crucial to recognize the complexities and concerns of this sector, taking into account the current and future role of this sector in rural livelihoods and new prospects for rural non-farm produce markets. This paper explores in general the definition and domain of the rural non-agricultural industry and, with special emphasis on Gujarat, the essence and dynamic of the manufacture and demand for handicraft goods. It addresses issues and discusses solutions to enhance manufacturing and marketing organization of these goods. The lack of marketing orientation, apart from weak backward and forward relations and a lack of resources, is argued as the main problem in this field. Based on scientific proof, several ideas are proposed for properly addressing the issues of the craft industry. Mishra (2005) discussed the entrepreneurial motivation in startups and survival of micro and small enterprises. The formation in rural non-farm economy of micro and small enterprises has given rise to much discussion among economic planners. Whereas some indicate this is due to driving factors such as the failure of farmers to absorb surplus work, others notice that non-farm units seem to be of better value even though they exist because of the driving factors. However, while all these adverse factors

may help to recognize macro factors, they are of little benefit to identify the micro factors that cause micro- or small-scale companies to start and thrive in a rural, non-agricultural economy. In this article, it is proposed that a broader variety of reasons should be established to learn how micro and small businesses are set up and survived in the rural non-farm market. This is particularly when various business motives vary from the restrictions that could be binding on the performance of those firms. Data from a village-level survey was obtained from micro and small businesses in a struggling agricultural region. Eapen (2001) discussed the agriculture and non – farm linkages for better performance of the non – farm sector. In view the failure of industrialization-led growth policies in the 1950s, rural non-farm jobs are seen as a key element in rural transition among the LDCs. A 1971 study of some social and economic aspects in villages which became town in 1991, shows the role of the of links and also witnessed that it mainly depending on the village's situation in relation to the major urban settlements, in generating non-farmer jobs. Reddy (2001) discussed the problem of child labour in the study district. Silk reeling is one of those small-scale dangerous sectors that are dominated by child labor in India. A comprehensive study conducted in Ramanagaram, Within Karnataka reeling center, reveals that about 50% of staff are under 14 children and that they work for a misery, a significant human tag. It is the parents and the owners of the reeling units who are responsible of such a disaster. Most children want to go to school and a bridge course has been begun to help them fulfill their wishes with the help of the State government and some NGOs. Singh (2000) also discussed the marketing aspect of rural non – farm products. In the field of business management literature, commercialization of rural non-farm goods has been relatively underestimated. But it is crucial to consider market trends and problems in this field, considering the current and future relevance of this area for rural lives and new opportunities for rural non-agriculture goods. This paper discusses the rural marketing philosophy and market in general and the market conditions and design of handicraft goods in particular, with

a view to developing strategies in order to improve the marketing of these products. In addition to weak backward and forward connections, it is argued that the absence of marketing orientation is the main issue in this field. Any specific solutions are proposed based on scientific research to help address the different sectors of the crafts industry. During the COVID 19 pandemic the rural non–farm sector witnessed a wide change in their business applications. In one of the many pieces of research, Saroj et al (2022), examined the role of Rural Non-Farm Employment (RNFE) in livelihoods and the potential effects of shocks such as COVID 19. Because small farmers with limited human and financial capital predominate in India's agri-food system, RNFE has been the primary source of poverty reduction. RNFE, on the other hand, is the most adversely affected by shocks like COVID 19 and disease-prevention measures. The authors used the most recent rounds of nationally representative Periodic Labour Force Surveys (PLFS) to assess the roles of RNFE and the potential effects of shocks. The study revealed that RNFE played a great role in reducing income loss due to COVID 19 lock down that resulted in job loss in the informal sectors.

This article by Mahapatra and Giri (2022) contributes to the literature by evaluating whether increased revenue obtained from rural non-farm businesses (NFEs) helps farm households increase their food and expenditure diversification. In addition, it examines the effect of NFE income on farm investment in order to appreciate how NFE income competes with or complements agricultural production activities. Due to the possible endogeneity of NFEs' income, they utilised the generalised two-stage least squares method. The models include socioeconomic, demographic, and household data as control variables. It has been determined that NFEs' income significantly increased food intake in general and helped farm households shift from less nutritious to more nutritious foods, which contributes to greater household dietary diversity, as well as increased expenditure on non-food items and durable household

assets, resulting in greater household expenditure diversity. In addition, the authors investigated whether the income from NFEs had a favourable effect on farm investment, which contributes to the transformation of the agricultural sector. Their findings shed light on the rising involvement of farm households in rural non-agricultural companies. This has substantial policy implications for the diversification of means of subsistence and consumption, particularly for marginal and small agricultural households. Rajkhowa (2022) mentioned that Agriculture is typically the main source of income for rural households in poor countries. Many people, however, engage in non-agricultural economic activities as a means of supplementing or replacing farm income. Off-farm jobs in rural areas tend to be unofficial and short-term. Some households may be unable to participate in the non-farm labour market because of the high transaction costs associated with job searching. The growing popularity of smartphones could eventually bring down these transaction prices. Here, we investigate the idea that having a cell phone might boost the income of rural families by encouraging them to seek out non-farming employment opportunities. To account for potential biases and unobserved heterogeneity, we employ regression models with household fixed effects on nationally representative panel data from rural India. We find that the possession of a mobile phone is correlated with the likelihood of engaging in non-agricultural self-employment, salaried employment, and other forms of non-farming wage labour. Households led by women benefit more from this correlation than those led by men. The estimates also demonstrate a positive relationship between mobile phone ownership and household income, with the connection being mediated in part by non-farm employment.

Table 2.2. Summary of the Findings on Non–Farm Activities in India

Sl. No	Broad Topic	Type of literature surveyed			
		Articles (52)	**Theses/ meta analysis (0)**	**Seminar proceedings/ books (0)**	**Total Relevant to my topic**
1	Acquisition of agricultural lands for the development of industrial land and subsequent development of non-farm sector	Journal Article			Lack of government intervention and training
2	It argues that improvements in the Baspur village economy were driven by the increased integration of the village with the outside world	Journal Article			Increased communication with outside market helps to learn new skills
3	Rural non-farm diversification, agricultural feminisation and women's autonomy in the farm: evidence from India	Journal Article			Employment generation depends on development of entrepreneurial activity
4	In the context of this paper two issues were examined:	Journal Article			Share of non – farm employment is more among

	firstly, the essence of rural diversification without agriculture, and, secondly, the accessibility of households in Bihar and Punjab for rural non-farm work.				farmers who are rich. The facility is not same for people who are in need
5	The author discussed the quality of employment to reduce the income inequality	Journal Article			Inequality often leads to create skill acquisition and access to various capitals that are required in non-farm sector
6	The authors discussed the issue that how far non – farm income affects the food security?	Journal Article			Income has a direct link with the food security. Lack of quality employment in non – farm sector often affects the income growth
7	This paper discusses the aspects of inequality in the labour market and policies to mitigate them.	Journal Article			For the sustainable growth, reduction in poverty and increase in human development in India, rising labor market

					inequality is significant.
8	This study highlights the labour market conduct of rural India in order to evaluate shifts in the employment structure and to define factors influencing rural labor supply improvements.	Journal Article			This article seeks, in particular with micro-level proof of feminization in agricultural activities by labor supply estimation, to resolve the contradiction between absolute decreases in workforce, in particular rural women at the national level.
9	The author discussed the growth of rural non – farm sector under capitalist structure	Journal Article			RNFS is an alternative rural field for the generation of jobs and enhanced wage conditions that contribute to the empowerment of rural labor force in the current literature.
10	This study explores the impact of money, human capital and the				The findings suggest that the allocation of high-return jobs is positively

	social group on farm household jobs and income to understand the process behind the recent rising diversification of income in rural East India				influenced by wealth and human resources, whereas low caste workers are more suspected to work in casual low paid jobs, partially because they rely on personal networks for jobs

2.3. Non – Farm Activities in West Bengal

In their study Satpati et al. (2021) discussed the livelihood opportunities in specific regions of West Bengal. Because of environmental and human reasons, livelihood opportunities are variable from area to region. No such studies take into account a broad geographical area and tribal regarding their livelihood choices. This research will also make a difference in literature. The research paper attempts to analyze the means of survival and safety of the tribes. The research was carried out in West Bengal along the south west plateau and mountainous area. Secondary information and primary data were used. The main data were collected using stratified random sampling techniques. For the collection of variables and metrics, the Sustainable Living Fund (SLF) was used. The key findings of the study are that small farms and conventional technologies are no longer designed to satisfy the increasing demands of tribes. The massive industrial and ever-increasing household demands are also causing forest supplies to decline very rapidly. Still, tribal walk much more miles than ever before to harvest forest resources. Better training opportunities could open up new opportunities for younger

generations and economic diversification and certainly add to the good economic standing of tribal people. Deka et al. (2020) discussed the issues and challenges of farmer's producer companies operating in West Bengal. Farmers' producers are seen as an institutional arrangement to provide small farmers market access and safe livelihoods. In India, in the past 8–10 years more than 4200 producers' organizations have been registered to organize millions of farmers to raise their profits. Most of these organisations however are in an early stage of being established across many obstacles. With the aid of primary data gathered from interviews with CEOs of 36 such companies in West Bengal, India, it was attempted by this report, to understand the difficulties of farmer production companies (a form of producer organisation). The analysis also examined the concerns surrounding the creation by production firms of institutional purchasers of a supply chain on the basis of a real-time trial, which involved the method of supplying a bulk purchaser of vegetables. The study showed that farmers' lack of confidence and knowledge is a major barrier to the formation of manufacturing firms. The operations of such organizations are challenged by inadequate preparation, incompetent management, and weak organization. In addition, the coordinated use of technologies, preparation, and planning will strengthen some of the inadequacies in the manufacturers' supply chain as seen in the experiment. Sarkar et al. (2020) discussed the problems of circular labour migration in the state of West Bengal. The Indian economy has been influenced by circular labor migration from rural areas. In general, circular migration has also been linked to the repression and non-freedom of migrant labor due to the effects of remittances in the household economy of migrants. This paper focuses on labour movement from one of the economically deprived districts of West Bengal, India into the construction sector. First, it explores who is involved in this mechanism of migration and highlights the essence of such migration. Secondly, it discusses the results of labor migration that is both economic and social. Thirdly, this is related to the wider discussions on the links between migration and growth.

This paper suggests that the long-term, life-cycle consequences of such circular labor migration must not be investigated, instead of dwelling on the short-term and stagnant benefits from migration. In the research work, Biswas (2020) attempts, with the Bai–Perron system of numerous systemic split analysis methods, to explain West Bengal's economic development. The Bengal economy experienced two shifts in its production growth between 1960 and 2014. The first split happened in 1983 and was affected by the breakdown in the agricultural market, a result driven by a transition in the policy regime. The second break took place in 1993, followed by a break in the financial sector and a change in the political system within the same political sphere. This research has investigated further in terms of sectoral composition and policy characteristics of the different stages of development. The economy of West Bengal is said to have progressed from an early stage of development to a moderate or balanced period of growth and a high stage of growth. Agrarian stalemate, industrial deceleration and political unrest had been observed at the low growth level. In the other hand, in the medium growth period agricultural growth and political stability had been unparalleled. During the high growth period, the tertiary sector has grown enormously and political turmoil in the latter portion. Dutta (2019) conducted a comparative study between two states viz. Gujrat and West Bengal to understand the growth of small-scale industries in rural areas. The current literature gained comparatively less support from rural, local, unorganized and industrial companies. This paper discusses the problems of growth of the small industrial sector in rural areas of Gujarat and West Bengal (known for emphasizing land reform and decentralisation of power). It found that West Bengal has a massive amount of rural main account manufacturing companies (OAME) compared to urban ones, while Gujarat does not have such a big rural/urban disparity. In West Bengal, the presence over urban equivalents of a wide range of rural small manufacturing companies indicates that most of the rural labor force is seeking to achieve income gain outside of agriculture. Likewise, Pattanayek (2019) aims to assess the role of living standards (SL) in

the development index for all 29 buildings of West Bengal's undivided Paschim Medinipur districts from 2005–2006 to 2014–2015 as a development metric for the renowned Human Development Index. This is achieved by creating a SLI standard in which by the implementation of the iterative average correlations process, the weights of the underlying parameters are obtained. There are high inter-block and high inter-temporal differences on the SLI, so planned. These disparities are explained by some of the variables chosen by SL, namely, literacy rate, non-agricultural labor rate, the expected tribe ratio, population density (PD) and per capita grain production, by the use of the panel data system as a fixed impact model and random effect model and the use of a pooled data model for their relative statistical importance dependent on orthotic values. Guin (2018) also discussed the issue of rural transformation from large villages to small towns. Since the 2011 census data was released, much has been written about the 'unparalleled' appearance of new census towns, their geographical spread, their place in urban development and possible causes. However, nothing is said about transforming the settlements involved, using field knowledge, from "rural" to "urban."Chakraborty et al. (2017) discussed the reasons for migration from the place of origin. The decision-making of the household on migration is an essential dimension of the migration literature, since it includes both sources and destinations as socio-economic considerations. This research is an attempt to conceptualize the determinants of household migration decision making preference and migration rate. It covers the single place and many destinations that a prospective migrant family faces during its decision on migration. The study found that variables such as family led background, schooling level of the family, family education, income gaps in post migrations and pre-migration circumstances, community networking and so on, are key factors in family migration decision. Dutta (2015) mentioned that the problems of work and/or underemployment often arise in rural areas in developed countries. The absorption of the increasing rural labor force is restricted in agriculture and urban-connected

industries. The development of jobs in rural areas has therefore been an important issue for academics and policymakers for many years. From the point of view of job creation, rural nonfarm economy is of major significance. Therefore, the regional features of rural growth of the non-farm sector need to be investigated. One way to capture this trend is to figure out if the need for capital/credit in non-farm companies is growing. We are looking at two situations in a comparative mode – the states of Gujarat and West Bengal. These two states have different features and thus have fascinating situations in which they can be compared. The prevalence of rural unemployment in West Bengal, for example, is very large in comparison to Gujarat. Gujarat, on the other hand, has seen no beneficial impact on the job elasticity of the secondary and tertiary sectors as a consequence of its systemic transition from primary to non-primary, revealing that the share of the primary sector is decreasing over the whole income but a significant portion of the workers still rely on this sector to obtain employment. What is happening in the non-farm rural sector against this backdrop? Does demand in the non-farm sector increase (captured here by unpaid cash loans)? The answer to these questions is going to help the policy makers to take important decisions for the growth of the state economy. Kundu et al. (2015) analyzes the effect on the rural non-farm economy and change in agrarian regime in India. As regards agricultural growth and/or progress, four main phases of transformations can be observed in India, for instance: the start of land reform, the green revolution, the establishment of contract agriculture, and the following diversification of the cultivation trend to high values. While it has discussed its effects on the rural non-farm (RNF) sector which is an integral part of the rural economy in India, it is still a little overlooking its effects on the changing agricultural situation. The authors argued that the more even distribution of land with the implementation of land reforms promotes development within the RNF economy through farms-free indicators in six agriculturally diversified states of India. While green revolution and diversification of crops towards high quality cultures resulted in

the conversion of land to the de-linked development of marginal-small farmers and RNF sectors, adequate land reform by maintaining agricultural sustainability may help to improve the non-farm activity. But, the broad-scale industrialisation agenda, which is at the expense of agricultural land transformation, causes the RNF economy to contract. Sarkar (2014) discussed the importance of contract farming to improve the agree business activities in West Bengal. The objective of modernisation has long been agriculture. Previous programs using 'green transition' technology is a statistical experiment aimed at boosting efficiency. Public policy is focused on identifying and maintaining customer markets, through rising competitiveness. Contract farming and connections with the structured retail sector were suggested in this context. This classified documents and the plan to translate agriculture into manufacturing are analyzed in this paper. The author is tried to find such a proposal on a national basis to explain the (global) complexities of agriculture and why global agri-capital proponents are in favor of contract farming. The author then attempts to objectively examine Bengal and India's future of contract farming. Dutta et al. (2014) elucidates the rural-urban mechanism as one of the fundamental determinants of rural-urban interconnections. In this paper, an equitable approach to the growth process is being developed in a developing world. Here, the authors address the topic of relocation from rural to rural and rural to urban areas, both short-term and long-term, and the authors are trying to understand how rural industrialization helps rural people find profitable jobs in local or small towns or centers nearby. The demand to find subsistence on land is argued to increase dramatically, although modern economies have very little space to accommodate rural unqualified labor. This debate is developed from the perspective of West Bengal and the reasons for rural industrialization are laid out. Farm development and rural non-farming activities would be expanded if we observe that in developed countries such as India the trend of consumption of both rural and urban populations is changing. Pramanik (2014) explained how agricultural workers in six selected villages in West Bengal district of Uttar-

Dinajpur, India are being diversified through jobs. The OLS technique is used to identify the determinants of employment diversification among farm households (number of economic activities per household). The observed diversification of occupations among farm workers is inherently distressing. Poverty and unemployment also pushed their enterprises to diversify. In the research of occupational diversification among agricultural workers the McGee study of diversification of distress seems more relevant. The lack of ability of farming to sustain excess labor has pushed them into numerous low-paying non-farm activities outside the state itself. In Kuznet and Mellor agricultural-led development models, the migration factor, low pay or prime value of non-agricultural activities have diminished. The key reason for diversification of farm labor households is the need rather than preference. Rakshit (2014) aims to assess at farm level, through the socio-economic class distinction lenses, in the current millennium, the existence of surplus and evolving trade mechanisms within agricultural and western Bengal. This paper is focused on the nature and trend of gross added value, farm labor, agricultural surpluses, and their effect on farm viability. In the end it answers (as far as the issue of agricultural viability, agricultural change and dispute is concerned) the effect of the strained exchange (caused by price shocks) on the surplus retention ratio at the farm level. The article cites the highly capitalist area where farm sector development is witnessed. In another study White (2013) explained that in addition to the chronic poverty and a mediocre human development record in Western Bengal under the democratically-elected Left Front over the last 30 years, the paper seeks to grasp high agricultural growth. Contrary to traditional interpretations, the objective of the study is to understand, by analyzing the social ties of the marketing mechanism after harvest that connects productivity and circulation. The contradiction between the growth of agriculture and the deprivation of the predominantly rural population also viewed. Based on field activities on West Bengal commodity markets during the quarter of a century of 1981–2004, it demonstrates that a few oligopoly companies dominate market surplus and their domination of

small-scale farmers and workers in the agricultural production and marketing sector may explain the apparently conflicting result. It also emphasizes the fact that the left-wing regimes tended to increase the rights of the local agro-commercial class, while attacking large-scale property. Folmer et al. (2010) discussed a model of Rural Industrial Entrepreneurship (RIE) among farmers in West Bengal, Bardhaman district, India is presented in this article. It not only defines RIE determinants but also analyzes RIE's effect on its endogenous determinants. The RIE's key determinants are age, education, marital status, infant number, crops number, financial support for the home, creativity, income and occupational status. Based on these results, promotion, education and training initiatives are proposed to promote and assist farmers in setting up a rural industrial enterprise as effective policy measure. Furthermore, it is proposed to establish adequate supply of working capital financed from financial institutions in rural areas as well. This policy instrument may not only boost rural industrialization but may also help to monitor the growth of unsustainable industrial activities in rural areas. Bhattacharyya et al. (2001) highlighted at the infrastructure development system in West Bengal, with regard to the debate between Marxism and populism. The socio-economic distinction mechanism has not ceased, but farm size alone does not have to register its scale methodologically. The core assertion of populism, which was Chayanov's point about demographic distinction that increased consumer/worker ratios was combined with a higher level of demand from family labor, was unenforceable. Particularly interesting is their role in agrarian reform in this last quarter of a century, and the degree to which the leftist government has consolidated small-scale peasant productivity through its pro-poor policies interventions. The State presence has declined in (a) the number of holdings above 10 acres (b) as far as sharecropping contracts are concerned and (c) the occurrence of utter landlessness in the agricultural sector. While growers under 2.5 acres are the principal recipients of institutional state credit, the poorest farmers continue to show distress sales (as demand surpluses). Biswas

(2001) discussed the cases of small-scale rural industries in promoting rural non – farm activities. Rural enterprises in Bengal West have several organizational modes, such as autonomous small-scale manufacturing, small-scale production under the terms of subcontracting, modern small-scale and medium-sized capitalism. Based on field results, in a variety of organizations and industries the author calculated the surplus produced by these various types of producers using an alternative criterion viz. the charging of family wages. A significant number of smallholder farmers have been found to produce negative or very low surplus and have to identify additional sources of income. In addition, surpluses produced by small producers associated with a master trader usually exceed those generated by independent smallholders. This is one of two ways to describe this. The presence of reciprocal trust between affiliated smallholders and an individual master trader provides certain benefits over the independent producers in terms of continuous access to urban marketplaces, cheaper raw material supplies and easy credit. Alternatively, a master trader may then extract and retain continuous access to higher surpluses through the management of these connection licenses. This method proves a feasibility for craft production. Chandrasekhar (1993) in his research study evidenced by the five-year labor market surveys of the National Sample Survey Organization; identified that rural India was experiencing a diversification of economic activities in favor of non-agricultural activities in the context of the transition movement related to the Green Revolution. This article looks at this claim using facts relating to India as a whole and in particular to the state of West Bengal. The research reveals that the occupational diversification that has been experienced in rural India for the last ten years and a half is not so much an end to rural dynamism after the Green Revolution, but reflects the fact that a large part of this country is still experiencing the effects of this phenomenon two and a half decades after the Green Revolution started in India.

There are insufficient empirical studies on the non-agricultural livelihood options of rural households in the Indian state of West Bengal. This study by Ghosh and Ghosal (2022) aims to investigate the factors that influence households' decisions to engage in non-agricultural economic activities. This study found that non-agricultural diversification factors are more heterogeneous and largely dependent on the strategic decisions of households. A household's choice of non-agricultural livelihood activity is determined by the dichotomous factors of opportunity-driven versus distress-driven, but it is a complex phenomenon of transformation. The largest proportion of non-agricultural livelihoods is wage labour (38.3%), followed by non-agricultural businesses (19.8%), service providers (18.0%), and salaried jobs (3.3%). Location and distance from the household to the town, food insecurity, and the size of the agricultural land are more influential and statistically significant factors in the selection of non-agricultural livelihood practices. The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) has had a negative effect on rural non-agricultural means of subsistence. There is an 18% and 39% chance of a decline in non-agricultural businesses and services relative to the expansion of MGNREGA employment opportunities. In addition, the likelihood of choosing non-agricultural businesses has increased by 56% as a result of precipitation and temperature changes. Ghosh et al. (2022) discussed that The non-farming livelihood options of rural households in the Indian state of West Bengal are not adequately explored in existing empirical studies. The purpose of this research is to investigate the factors that influence people's decisions to work in industries other than agriculture. Non-farm diversification factors were found to be more variable and to rely heavily on the strategic choices made by individual households. Opportunity-driven and distress-driven factors both influence a family's decision to pursue non-farm livelihood activities, but this transition is more nuanced than it may seem. Among non-farming livelihoods, wage work has been found to account for the largest percentage (38.3%), followed by non-farm businesses (19.8%), service providers (18.0%), and

salaried jobs (3.4%). More influential and statistically significant factors in selecting non-farm livelihood practises are the location and distance to the town from the households, food insecurity, and agricultural land size. It is clear that the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) has had a chilling effect on rural non-farming means of subsistence. Given the rise in MGNREGA jobs, there is a 1 in 5 chance that non-farm businesses and services will decline. In addition, weather-related and climate-related disasters have increased the likelihood that individuals will choose non-agricultural businesses by 56%.

Table 2.3. Summary of the literature review on Non–Farm Activities in West Bengal

Sl. No	Broad Topic	Type of literature surveyed			
		Articles (64)	**Theses/ meta analysis (0)**	**Seminar proceedings/ books (0)**	**Total Relevant to my topic**
1	Acquisition of agricultural lands for the development of industrial land and subsequent development of non-farm sector	Journal Article			Lack of government intervention and training
2	It argues that improvements in the Baspur village economy were driven by the increased integration of the village with the outside world	Journal Article			Increased communication with outside market helps to learn new skills

3	Rural non-farm diversification, agricultural feminisation and women's autonomy in the farm: evidence from India	Journal Article			Employment generation depends on development of entrepreneurial activity
4	In the context of this paper two issues were examined: firstly, the essence of rural diversification without agriculture, and, secondly, the accessibility of households in Bihar and Punjab for rural non-farm work.	Journal Article			Share of non – farm employment is more among farmers who are rich. The facility is not same for people who are in need
5	The author discussed the quality of employment to reduce the income inequality	Journal Article			Inequality often leads to create skill acquisition and access to various capitals that are required in non-farm sector
6	The authors discussed the issue that how far non – farm income affects the food security?	Journal Article			Income has a direct link with the food security. Lack of quality employment in non – farm sector often

					affects the income growth
7	This paper discusses the aspects of inequality in the labour market and policies to mitigate them.	Journal Article			For the sustainable growth, reduction in poverty and increase in human development in India, rising labor market inequality is significant.
8	This study highlights the labour market conduct of rural India in order to evaluate shifts in the employment structure and to define factors influencing rural labor supply improvements.	Journal Article			This article seeks, in particular with micro-level proof of feminization in agricultural activities by labor supply estimation, to resolve the contradiction between absolute decreases in workforce, in particular rural women at the national level.
9	The author discussed the growth of rural non – farm sector under	Journal Article			RNFS is an alternative rural field for the generation of jobs and enhanced wage

	capitalist structure				conditions that contribute to the empowerment of rural labor force in the current literature.
10	This study explores the impact of money, human capital and the social group on farm household jobs and income to understand the process behind the recent rising diversification of income in rural East India	Journal Article			The findings suggest that the allocation of high-return jobs is positively influenced by wealth and human resources, whereas low caste workers are more suspected to work in casual low paid jobs, partially because they rely on personal networks for jobs

2.4. Linkage with Research Topics

The above literature is primarily focused on three geographical areas to get a wider perspective related to non – farm economic activities, viz non – farm activities throughout the World, non – farm activities in India and non – farm activities in West Bengal. The study reveals more or less similar nature of understanding in each geographical area. So, some numbers of commonalities do exist in terms of factors affecting the non – farm activities. A summary of the study is mentioned below:

2.4.1. Summary of the study Related to Non – Farm Activities: World Scenario

- Location of the non – farm sector and impact of natural phenomenon can affect growth of the non – farm sectors in the study area. **Godsolve et al. (2020)**
- Access to market and financial services are two important dimensions to improve the performance of non – farm sector. **Sohns (2018)**
- Creativity and entrepreneurialism improve non – farm employment opportunities among new age farmers. **Mckillop et al. (2018)**
- ICT based training may lead to inequality if training is not adequate. **Rao (2018)**
- Climate change, lack of access to capital, poor infrastructure, lack of training is often facing problem for the growth of non – farm sector. **Asfaw et al. (2017)**
- Household work pressure affects the extra earning opportunities. **Mao et al. (2017)**
- Skill enhancement, product training, market and access to credit are the important factors for the growth of non – farm sector. **Sarkar et al. (2016)**
- Development of non – farm sector largely depends on skill enhancement and level of educational achievement. **Tschirley et al. (2015)**
- Lack of access to finance, location of the place of origin and access to market are the main determinants for the growth of non – farm sector. **Agbonlahor et al. (2015)**
- Non – farm income reduces the inequality in income. **Nathan (2014)**
- Female-headedness, labour availability, education, social networks, access to finance and rural towns increase the probability of participating in RNF activities. **Hitayezu et al. (2014)**
- Access to finance, access to market, access to electricity, proper transportation improves the chances of non – farm employment opportunity. Along with-it private investment (PPP) is also required. **Sur et al. (2014)**

- Growth of non – farm sector largely depends on level of education of beneficiaries, development of adequate infrastructure, adequate flow of credit towards non – farm sector and sufficient supply of electricity. **Senadza (2012)**
- Lack of education, training, old technology, delinked from modern training, less marketing information often affects product quality upgradation. The author also suggested PPP model for the development of non – farm sector. **Mottaleb (2011)**
- Government support from the perspective of financial and technical help can increase non–farm employment. **Kwai et al. (2010)**
- Nature of human capital and their skills often lead to affect the demand and supply of manpower in a specific location. Non availability of jobs lead to out-migration. **Nerys et al. (2006)**
- For commercialization of agri products off-farm employment is required. A contract farming model may create this opportunity. **Tudor et al. (2006)**
- Non-farm activity created a positive impact on socioeconomic factors, increased participation in the decision-making process, increased income, increased standard of living, and increased consumption of nutritious food items **Eftekhari et al. (2002)**
- Restrictive migration helps to increase non–farm productivity. **Johnson (2002)**
- A link with the market through technology and training through educational institutes helps to improve employment opportunities in the non–farm SME sector. **Machethe et al. (1997)**
- Promotion of small-scale industries are required. **Kirsten (1995)**

2.4.2. Summary of the Study Related to Non–Farm Activities: Indian Scenario

- Transformation in rural economy leads to migration. **Majumdar (2020)**

- Improved mode of communication and transport helps to create a better market for non–farm products. **Alha (2020)**
- Skill development training – long-term training is more beneficial than short-term training. **Melo et al. (2020)**
- Overall, caste, gender, and education are dominant determinants that work as barriers to entry for rural households. **Singh (2020)**
- Development of rural physical infrastructure and attainment in education is the key to success in the non – the farm sector. **Sen (2020)**
- Lack of social interaction and differential work help to create diverse income opportunities. **Saha (2019)**
- Improvement in social security benefits and the technical progress in the job can improve the quality of employment. **Moktan (2019)**
- Less involvement of women workforce in productive work due to marriage or household work reduces the employment trend in the country. **Apte et al. (2018)**
- Macro policies, sectoral policies, skill-related policies, education and social protection policies are important for reduction of labour market inequalities. **Dev (2018)**
- Women, lower level of education and large land holdings are less likely to move to informal sectors. **Mishra et al. (2018)**
- Capacity-building programmes for skill augmentation focusing rural female workers. **Roy et al. (2018)**
- Development of market relation helps to get long term market for the non–farm products. **Bordoloi (2017)**
- Wealth, quality of human capital affects jobs in the non–farm sector. **Nakajima et al. (2017)**

- Favourable environment for dynamic diversification of the rural economy and change in the education system can bring changes in income generating opportunities. **Sharma (2016)**
- The most important factors are promotion, development of institutional linkage between farm and non – farm sector, training support, development of customer relationship model. **Pandey (2015)**
- Imparting skill and payment of minimum wages can improve the informal sector employment hence improve the non – farm employment opportunity. **Kathuria et al. (2015)**
- Marital status, distance of travel, land holding, borrowing and livestock are the determinant factors for RNF employment. **Pandi (2015)**
- Skill enhancement is needed for the growth of non – farm sector. **Sivasubramaniyan (2014)**
- Rural urban linkage helps to improve better market access. **Das et al. (2013)**
- Improvement in skills, technology and marketing is needed. **Mishra (2013)**
- Adequate flow of credit improves non – farm activities. **Reddy (2013)**
- There is a positive link between higher participation in non–farm employment and household income. Women members are not participating in non–farm jobs. Their involvement is limited and restricted to household and farm sector jobs. **Awasthi (2012)**
- Infrastructure facility, agriculture productivity, agriculture commercialization, household characteristics variables, person related variables, significantly explain the variation in rural non-farm employment. **Pandey (2012)**
- Lack of education often creates barriers. **Mishra (2010)**

- Lack of marketing orientation, poor backward and forward linkage, lack of capital. **Singh (2005)**
- Lack of working capital, lack of finance, Skill/training, infrastructure, and access to market creates barrier for growth in non – farm sector. **Mishra (2005)**
- Infrastructure development is the key for non – farm sector's growth. **Pradhan (2005)**
- Location and large urban settlement give required market access. **Eapen (2001)**
- Lack of marketing orientation, poor backward and forward linkage. **Singh (2000)**

2.4.3. Summary of the study Related to Non–Farm Activities: West Bengal Scenario

- Small landholding size and traditional technology are no longer to meet the rising demands of tribal population. Lack of education is also a problem. **Satpati et al. (2021)**
- Inadequate training, inept management, and poor organizational skills of the members challenge the functioning of such companies. **Deka et al. (2020)**
- Family head, schooling level of the family, income of the family, income differences in post- and pre-migration situation, village networking. **Chakraborty et al. (2017)**
- Credit movement towards farm and non – farm sectors. **Dutta (2015)**
- Land reform, contract farming, green revolution. **Kundu et al. (2015)**
- Introduction of contract farming. **Sarkar (2014)**
- Lack of skill and lack of rural urban linkage. **Dutta et al. (2014)**
- Poverty and unemployment mainly shift to non-farm sector. **Pramanik (2014)**
- Social Relation affects non – farm working scenario. **White (2013)**
- Promotion, education, and training programs are suggested as important policy handles to encourage and support farmers to start a rural industrial enterprise. **Folmer et al. (2010)**
- Requirement of institutional credit and distress sales. **Bhattacharyya et al. (2001)**

- Steady access to urban market, availability of raw materials, easy credit. **Biswas (2001)**

Table 2.4. List of variables Identified for the Study from review of literature

1. Level of education of the workforce
2. Quality of human capital
3. Skill acquisition
4. Access to market
5. Access to credit
6. Insufficient training
7. Lack of training
8. Lack of access to capital
9. Social network
10. Promotion of small-scale industries
11. Government support to improve technical skills
12. Government support to improve access to finance
13. Development of market linkage through technology
14. Increased participation of private organizations through PPP model
15. Improved mode of communication and transport
16. Rural urban linkage
17. More participation of women workforce
18. Improved social protection
19. Long term skill training
20. Commercialization of agricultural products
21. Development of rural infrastructure
22. Poor backward and forward linkage
23. Easy availability of raw materials
24. Introduction of contract farming

2.5. Research Gap

The extensive study shows many directions in the field of non – farm sector. The study reveals that the growth of non – farm sector mainly depends on the factors like level of education, linkage with the market, flow of credit, long term skill training, skill enhancement of the workforce, social interaction easy availability of raw materials, infrastructure and many more. Each of these factors are playing important role for the growth of the non – farm sector. But the review identified that one crucial area i.e., quality of employment is totally ignored in the existing literature. So, the research question can be developed based on the existing gap.

2.6. Research Question

a) Does the identified factors creating impact in the study area in terms of generating income opportunities in the non – farm sector?

b) Do the identified factors are able to improve the quality of employment in the study area related to non – farm sectors?

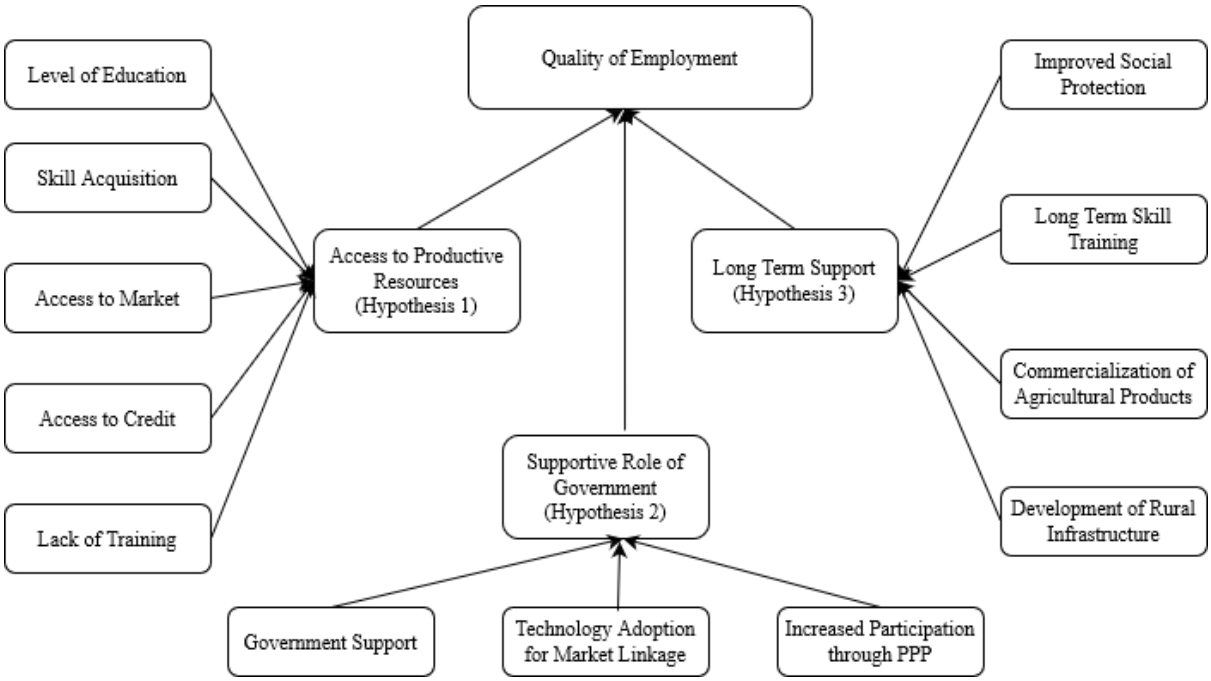
2.7. Research Objective

Based on the research gap and subsequent research questions, the following objectives are developed:

- Identification of factors that have a link with non–farm income generating opportunities in the study area
- To make a comparative study among two study districts to understand how far the factors are able to improve the quality of non–farm employment
- To understand the perception of the respondents regarding role of the factors in improving the quality of non–farm employment in the two study districts

Conceptual Model

Based on the discussion above the following conceptual model is developed. The model is based on the variables identified through a review of the literature and exploratory research (focus group). A detailed description of the hypotheses are mentioned in next chapter.



2.8. Summary

The observed occupational diversification among agricultural labourers is distress in nature. Poverty and unemployment forced them to diversify their economic activities. McGee's study of distress diversification is more appropriate in the case of analysis of occupational diversification among agricultural labourers. The inability of agriculture to absorb surplus labor, even outside the region, forced it to engage in numerous low-paying non-agriculture activities. The key reason for diversification amongst households of farm workers is the need rather than preference. Or pushing forces lead to diversification in the farm households rather than pulling factors. The occupational diversification of farm workers' homes has been affected positively and substantially by household size, non-farm assets, literacy rates and the impact of non-farm work. Diversification is an endlessly heterogeneous social and economic

phenomenon which has been subject to countless strain and opportunities in the rural economy. It is characterized by location, population, vulnerability, income levels, education and many other factors in its causes and effects. It stresses the relevance of local contexts and therefore the adaptation of local policies to local conditions (Ellis, 1998). Finally, it is important to make two forms of suggestions. The production of agriculture and agriculture needs to be emphasized as associated practices, such as milk, poultry and fisheries, as agriculture itself can play a role in various forms of diversification, and modern crop and/or farming systems can also make a significant contribution to occupational diversification. In order to end migration, special attention must also be paid to generating non-farm jobs in rural areas. The proper application of MNREGA is also vital to the creation of alternative jobs in rural areas and to guarantee the minimum wage rate in agriculture. A "balanced sectoral growth strategy that emphasizes simultaneous success both in agriculture and in the non-farming sector will be needed to achieve the highest level of job generation. Secondly, the strategy needs to be developed to build skills for agricultural workers by delivering education and training in order to gain access to more remunerated employment. Education is a major facilitator of diversification of jobs. Since poverty is closely linked to a shortage of schooling and expertise, education is an important factor leading to the increased capacity for economic diversification in poor workers' households.

CHAPTER - III

RESEARCH METHODOLOGY

CHAPTER - III

RESEARCH METHODOLOGY

3. Introduction

The research processes have an important role in deciding how quantitative research may be done. The basic goal of any primary study is to identify the research problem. It will not yield any substantial results until and until the study problem is explicitly established. The researchers can devise a technique to keep the study on track using a well-planned mechanism. Any deviation leads to unfinished business. This flow must be determined in order to plan the research. The research methodology is a technique that aids in the identification of various research procedures. As a result, the research approach must be planned in accordance with the identified problem. The research topic is identified in this study by a thorough examination of the literature and further confirmation of the concept. There are two types of research: generic qualitative research. A qualitative research approach is a method that aids in the exploration of sensitive information. As a result, the strategy used here is primarily informal in nature. A quantitative approach of research, but on the other hand, may be used if the work is focused on primary data. The intricacies of this process will be explored later in this example, both qualitatively and quantitatively.

Research Questions

a) Do the identified factors create impact in the study area in terms of generating income opportunities in the non–farm sector?

b) Do the identified factors are able to improve the quality of employment in the study area related to non–farm sectors?

Research Objectives

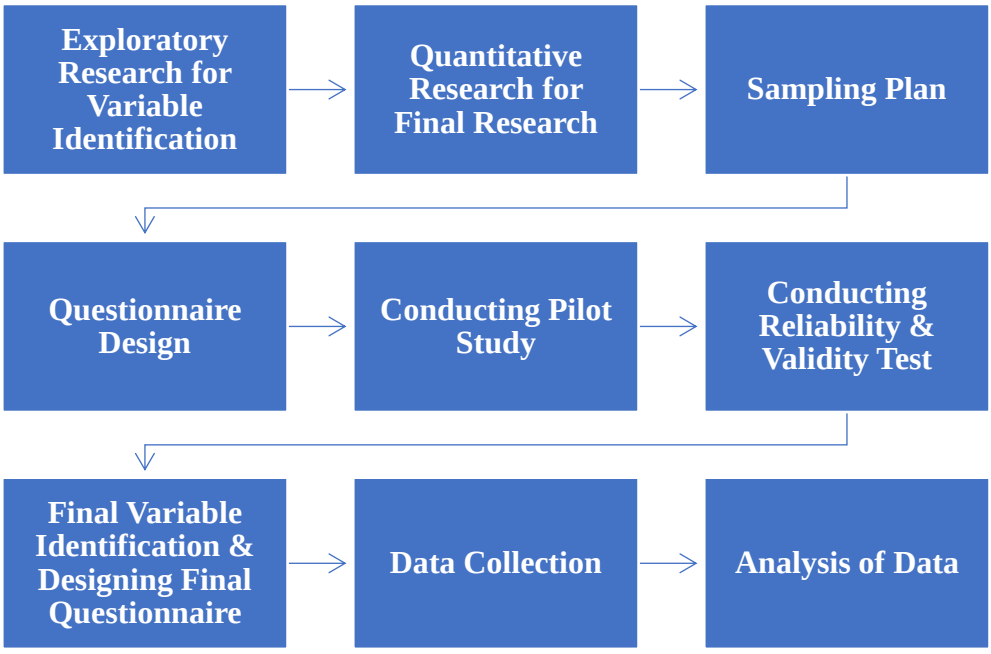
Based on the research gap and subsequent research questions, the following objectives are developed:

1. To identify the factors influencing employment opportunities in non –farm activity.

2. To explore the role of factors on improving the quality of non-farms employment.

3. To find out whether factors identified vary on improving the quality of non–farm employment.

Flow Chart on Methodology of Research



Research Design

3.1. Exploratory Research

An exploratory research approach is a tool that assists researchers in identifying either the core research topic or the likely research factors that may impact the research conclusion. The goal of exploratory research differs from that of conclusive research, in which a definitive result

may be determined. In exploratory research, an overarching notion about the study issue may be designed in such a way that the researcher can receive assistance on how and in what manner to perform the research. Exploratory research is mainly applied when research problem is not properly defined and the research variables are not defined. In this study, both the research problems as well as research variables are identified with the help of focus group interviews and review of literatures. The process helps to initiate 24 variables collected from different literatures. All these variables are considered for the study and kept it in the same form for further study. This is because, some of the variables may not be relevant from the present study context. A pilot study conducted at later stage helped to identify the right variables that has been considered in the present study. The list of variables thus identified are listed in the table 3.1.

Table 3.1. List of Initial Variables

1. Level of education of the workforce
2. Quality of human capital
3. Skill acquisition
4. Access to market
5. Access to credit
6. Insufficient training
7. Lack of training
8. Lack of access to capital
9. Social network
10. Promotion of small-scale industries
11. Government support to improve technical skills
12. Government support to improve access to finance

13. Development of market linkage through technology

14. Increased participation of private organizations through PPP model

15. Improved mode of communication and transport

16. Rural urban linkage

17. More participation of women workforce

18. Improved social protection

19. Long term skill training

20. Commercialization of agricultural products

21. Development of rural infrastructure

22. Poor backward and forward linkage

23. Easy availability of raw materials

24. Introduction of contract farming

3.2. Types of Data

Every study is founded on the right identification of data, since the primary task is to conduct research in an orderly manner. Faulty data selection can result in misleading results that do not lead to a meaningful conclusion. There are often two types of data available in the area of research, and either primary or secondary data are used depending on the requirements. Both sets of data are significant, but their use is totally dependent on whether the data set sought by the investigator meets the study's requirements. Because secondary data is already available at a certain region, it is less expensive and takes less time to get. The fundamental distinction is that the goal of data publishing is something different, and if the researcher uses this published and confirmed data, it may help the researcher's study aims. The objective of acquiring primary data, on the other hand, is to directly meet the research's needs, and the same data should be

associated with the research's primary goal. It is critical to use secondary data effectively so that it is related to the study topic. Secondary data was mostly employed in this study to establish the basic concept of the study and its relevance. However, primary data was the major source of data used to identify the study problem and its likely solution. As primary data is vital for this investigation, it is vitally valuable that this data be collected correctly from the intended respondents without bias. This gives birth to two fundamental components of research methodology: identifying target respondents and selecting those study participants using a suitable sample approach. In this study the primary data is collected during field visit and the secondary data is collected through different literatures that are covered during literature survey. While collecting primary data, adequate measures are taken to ensure that the responses are collected from target respondents only.

3.3. Identification of Target Respondents

The target respondents are mainly those who are engaged in non – farm works. Since, there is no direct definition of non – farm workers, the researcher identified those workers as non – farm workers who are not cultivators, agricultural workers and non – workers as defined in the census data. Census 2011 categorized the workers as main workers and marginal workers who are again sub divided as mentioned in the table 3.2.

Table 3.2. Categories of Workers

Category	Sub – Categories
Main Workers	Cultivators
	Agricultural Labourers
	Household Industry Workers
	Other Workers
Marginal Workers	Cultivators
	Agricultural Labourers
	Household Industry Workers
	Other Workers

Source: Census Report, 2011

To calculate the non – farm workers, the researcher excluded cultivators and agricultural labourers. The list of non – farm worker is shown in the table 3.3.

Table 3.3. District wise Non – Farm Workers

District	Main Workers				Marginal Workers			
	Cultivators	Agricultural Labourers	Household Industry Workers	Other Workers	Cultivators	Agricultural Labourers	Household Industry Workers	Other Workers
Burdwan	284860	476956	51662	1025203	34253	223552	13137	53014
Birbhum	181962	302096	18272	283318	28244	159244	5733	50901
Bankura	226414	219998	22070	293606	50567	165051	7929	65187
Purba Medinipur	227108	250205	36537	486353	68845	293496	20465	133087
Paschim Medinipur	403904	363115	39114	446074	82917	311038	19421	91775
Howrah	284860	476956	51662	1025203	34253	223552	13137	183460
Hooghly	181962	302096	18272	283318	28244	159244	5733	50901
Purulia	226414	219998	22070	131004	50567	165051	7929	16708
24 Parganas (N)	227108	250205	36537	486353	68845	293496	20465	133087
24 Parganas (S)	403904	363115	39114	446074	82917	311038	19421	91775
Kolkata	4702	6767	41487	604071	3454	2006	6312	106428
Nadia	286621	436313	78186	1241310	10434	76987	8464	183460

Murshidabad	336521	597348	97611	631144	27007	182494	19900	93642
Uttar Dinajpur	211115	238667	10091	228896	14125	67298	2608	26827
Dakshin Dinajpur	156797	129402	10375	293606	11167	42188	1919	65187
Malda	206232	281043	24882	339775	19899	128291	11040	75299
Jalpaiguri	167234	166901	13334	574713	15367	53684	4315	95813
Darjeeling	41632	23372	7863	323474	13062	16996	2804	50383
Cooch Behar	28599	212822	16063	237364	19146	44603	3206	28505
West Bengal	4087949	5317375	635202	9380859	663313	2919309	193938	1595439

Source: Bureau of Applied Economics and Statistics, Government of West Bengal, 2012 Report

Though there is no direct way to calculate non – farm workers, but as per the given categorization non – farm workers are those workers who are not working in the agricultural sector. By this way, workers engage in household industry and other workers are coming under the category of non – farm workers.

Since the present study is addressing the quality of employment in rural non – farm sector, the following non – farm sectors are identified for the study purposes (based on NSS unit level data 2011):

- Minning and Quarrying
- Manufacturing
- Household Manufacturing
- Non – Household Manufacturing
- Constructions
- Trade and Commerce
- Transport, storage and Communication

3.4. Sampling Technique

Sampling technique is an important tool to select the target respondents from the give population. It is always better if we go for population study but due to limitations of the time and money it is not possible all the time. As a result of which we need to select an appropriate sampling technique. As a researcher, either we can go for probability sampling technique or non – probability sampling technique or a mix of both, depending on the research problem.

In this case, the researcher decided to go for four stage sampling as mentioned below:

Stages	Type of Sampling Technique
Stage 1: Selection of Study District	Purposive Sampling (The district which shows the highest growth in rural non – farm sector and the district which shows the lowest growth in the rural non – farm sector)
Stage 2: Selection of Blocks	Purposive Sampling (The blocks which show the highest growth in non – farm sector and the blocks which show the lowest growth in the district)
Stage 3: Selection of Villages	Simple Random Sampling
Stage 4: Selection of Household Members	Simple Random Sampling

Stage 1: Selection of Study Districts

At Stage I, a purposive sampling technique is applied in order to identify the districts having highest number of non – farm workers and lowest number of non – farm workers respectively.

Table 3.3 shows that as per the report of Bureau of Applied Economics and Statistics, Government of West Bengal, Nadia district has the highest concentration of rural non – farm workers while Purulia district has the lowest concentration of rural non – farm workers.

Stage 2a: Selection of Blocks: Nadia District

Table 3.4. Block wise distribution of the villages: Nadia District

Sl. No.	Block	District	Type of Block	Number of Towns	Number of Villages
1	Nadia	Nadia	Town	10	0
2	Chakdah	Nadia	Town & Village	10	137
3	Nakashipara	Nadia	Town & Village	2	101
4	Ranaghat - II	Nadia	Town & Village	6	108
5	Kaliganj	Nadia	Town & Village	2	105
6	Krishnagar - I	Nadia	Town & Village	3	87
7	Chapra	Nadia	Town & Village	1	77
8	Hanskhali	Nadia	Town & Village	3	76
9	Tehatta - I	Nadia	Village	0	55
10	Santipur	Nadia	Town & Village	5	54
11	Haringhata	Nadia	Town & Village	4	82
12	Karimpur - II	Nadia	Village	0	65
13	Ranaghat - I	Nadia	Town & Village	9	55
14	Karimpur - I	Nadia	Town & Village	2	65
15	Tehatta - II	Nadia	Village	0	32
16	Krishnaganj	Nadia	Village	0	52
17	Krishnagar - II	Nadia	Town & Village	1	44
18	Nabadwip	Nadia	Town & Village	7	21

Source: District Census Report, 2011

As mentioned, the blocks are identified through purposive sampling technique, the researcher identified Tehatta I and Tehatta II as the study block as because these two blocks show maximum number of rural non – farm workers. Under Tehatta I and Tehatta II total 55 and 32 villages are there respectively. These villages are given unique numbers and put it under two

different clusters. Each block here represents one cluster. From these clusters 5 villages are selected. So, total 10 villages are identified during this stage from Nadia district. The name of the selected villages of Nadia district are mentioned in the table 3.5.

Table 3.5. List of Selected Villages from Nadia District (Stage 3)

Name of the Block	**Name of the Village**	**Number of Non - Farm Workers[9]**
Tehatta I	Bahadurpur	75
	Karaigachhi	429
	Rajapur	298
	Taranipur	377
	Jitpur	294
Tehatta II	Barnia	1344
	Charakpota	126
	Palsunda	1274
	Natipota	848
	Sahebnagar	466
Total number of Non – Farm Workers		**5531**

Stage 2b: Selection of Blocks: Purulia District

Table 3.6. Block wise distribution of the villages: Nadia District

Sl. No.	Block	District	Type of Block	Number of Towns	Number of Villages
1	Para	Purulia	Town & Village	5	118
2	Kashipur	Purulia	Town & Village	3	198
3	Barabazar	Purulia	Town & Village	1	202
4	Purulia - II	Purulia	Town & Village	2	101
5	Purulia	Purulia	Town	3	0
6	Arsha	Purulia	Village	0	95
7	Manbazar - I	Purulia	Town & Village	1	219
8	Purulia - I	Purulia	Town & Village	1	105
9	Jhalda - II	Purulia	Town & Village	2	118
10	Hura	Purulia	Village	0	111
11	Balarampur	Purulia	Town & Village	1	89
12	Jhalda - I	Purulia	Town & Village	1	131
13	Bagmundi	Purulia	Village	0	138
14	Jaipur	Purulia	Town & Village	1	109
15	Puncha	Purulia	Village	0	99
16	Raghunathpur - I	Purulia	Town & Village	1	99
17	Raghunathpur - II	Purulia	Town & Village	1	90
18	Neturia	Purulia	Town & Village	3	110
19	Manbazar - II	Purulia	Village	0	124
20	Bundwan	Purulia	Town & Village	1	131
21	Santuri	Purulia	Town & Village	1	92

Source: District Census Report, 2011

The table shows that 5 blocks are comprises of villages only. Out of these 5 blocks the researcher identified Hura and Arsha using purposive sampling method as these two blocks show lowest concentration of rural non – farm workers. It is decided to identify 5 villages from each of these two blocks for further study. The list of these 5 villages for each block is shown in the table 3.7.

Table 3.7. List of Selected Villages from Purulia District (Stage 3)

Name of the Block	**Name of the Village**	**Number of Non – Farm Workers**
Hura	Baragram	844
	Daldali	1601
	Hura	1151
	Parsia	1067
	Nawadi	991
Arsha	Baram	769
	Dhanara	456
	Jhujhka	533
	Kantadi	524
	Palpal	1992
Total number of Non – Farm Workers		**9928**

So, total population for this study is calculated as 15459 (District Census Report 2011). This population is considered to determine the sample size.

Stage 4: Selection of Target Respondents

A random sampling method is applied to select the respondents from each village. Adequate measures are taken to select the respondents randomly and there should be adequate responses from each of the study villages selected finally.

3.5. Selection of Sample Size

To identify the sample sizes below mentioned formula is used:

Sample Size = $N / (1 + \sigma^2 N)$; where

N is total population size in the study area (Here, it is 15459)

And σ is the standard error. Normally we are taking .05 as the standard error. This deviation is expected as the researcher is dealing with samples not the population.

Using this formula, the sample size = $15459/ (1 + 0.05^2 \times 15459) = 389$

To get adequate representation of sample respondents from both districts it is decided to get 50% of the respondents from Nadia district and rest of the 50% from Purulia district. Accordingly, total 500 questionnaires were distributed with the help of investigators and information was collected for a period of 2 months (November to December, 2021). The process helps to collect data from total 372 respondents and it was later validated to finally use in the analysis. The village wise respondents are mentioned in the table 3.8.

Table 3.8. Village wise Responses Received (Nadia and Purulia)

Name of the Block	Name of the Village	Responses Received
Tehatta I	Bahadurpur	8
	Karaigachhi	16
	Rajapur	21
	Taranipur	14
	Jitpur	16
Tehatta II	Barnia	34
	Charakpota	10
	Palsunda	32
	Natipota	20
	Sahebnagar	15
Total Responses from Nadia		**186**
Hura	Baragram	21
	Daldali	21
	Hura	20
	Parsia	22
	Nawadi	17
Arsha	Baram	14
	Dhanara	19
	Jhujhka	18
	Kantadi	12
	Palpal	22
Total Responses from Purulia		**186**

Thus, the process helps to identify total 372 responses from the study villages. Although, the researcher was planning to collect information from 389 respondents but out of these, 372 responses were received from surveyors in correct form. Thus, the response rate is 95%.

3.6. Questionnaire Design

The questionnaire design of the research is critical since it facilitates in the extraction of reliable data from the target respondents. When constructing the questionnaire, some factors should be taken. The first step in constructing a questionnaire is to connect the study's purpose to finalized questions. This is important since it facilitates in the extraction of correct data. The questionnaire's language should be carefully studied, and the researcher should avoid employing double-barreled questions, which commonly confuse respondents. Proper coding is also necessary since it helps responders completely understand the question. It is critical to understand who is collecting the data. Non-sampling error (response or interviewer error) is more frequent if the collector does not have a thorough grasp of the research topic. The employment of a scaling strategy in the questionnaire becomes crucial. However, there are alternatives. As a result, researchers should exercise caution before concluding any type of scaling tactics that are intended to be included into the questionnaire and their relevance. In this study the questionnaire is divided into two segments.

Segment 1 comprises of demographic and general information of the respondents and segment 2 comprises of the responses related to research variables. These responses are captured in a 5-point Likert scale where 5 means strongly agree with the statement, 4 means agree with the statement, 3 means neutral, 2 means disagree and 1 means strongly disagree.

3.7. Pilot Study

The outcomes of the pilot study have been used by the researcher to identify the loopholes in the current approach. A pilot study is essential since it can save the researcher’s money and effort. Two things should be examined during the pilot project: the appropriateness of the variables discovered during experimental studies and the literature study, and the reliability and validity of the instruments used in the questionnaire. In pilot research, these issues are

examined with a small representative sample size. The technique is employed prior to implementing the final study so that any discrepancies may be addressed and remedied ahead of time. The reliability and validity of the questionnaire are often utilised to conduct the pilot research. Because the questionnaire is the only instrument that integrates all of the prospective research variables, its reliability and validity must be evaluated. The collection of factors included in the third portion of the questionnaire are primarily explored in this study using a pilot study. In the present study the researcher took the help of 43 respondents in total from both the study areas. Out of which 22 from Purulia district and 21 are from Nadia district.

3.7.1. Reliability Study

Reliability study indicates whether the initial 24 variables selected during the review of literature are sufficient to conduct the research and whether the variables are internally consistent or not. Although, there are different methods are available to test the reliability but the same can be best judged using Cronbach's alpha value. If the alpha value is more than 0.70 then the variables are internally consistent. The result of the outcome is shown in the table 3.9.

Table 3.9. Reliability Test

Cronbach's Alpha	N of Items
.815	24

As the alpha value is more than 0.70, it can be concluded that the variables are internally consistent. To get a better alpha value the researcher checked item total statistics table shows.

Table 3.10. Item Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Variable_1	89.6977	77.359	.554	.801
Variable_2	89.6047	76.054	.606	.798
Variable_3	89.7209	74.492	.622	.795
Variable_4	89.5349	76.969	.545	.800
Variable_5	89.3953	79.340	.478	.805
Variable_6	89.3953	79.197	.465	.805
Variable_7	89.3953	77.530	.485	.803
Variable_8	89.4419	84.919	.095	.817
Variable_9	89.4186	82.916	.305	.812
Variable_10	89.2558	86.290	-.057	.823
Variable_11	89.2791	84.539	.122	.817
Variable_12	89.6279	80.573	.229	.816
Variable_13	89.6977	79.930	.236	.816
Variable_14	89.6512	80.756	.204	.818
VAriable_15	89.7442	78.052	.413	.806
Variable_16	89.8605	78.409	.321	.812
Variable_17	89.7674	80.087	.321	.810
Variable_18	89.3721	77.287	.512	.802
Variable_19	89.6047	77.007	.609	.799
Variable_20	89.6977	77.168	.474	.803
Variable_21	89.4186	78.440	.403	.807
Variable_22	89.4884	81.637	.211	.816
Variable_23	89.6279	82.001	.213	.815
Variable_24	89.4651	80.159	.235	.816

The table shows that even if we remove any variable then the improvement in alpha value is marginal. So, it has been decided to keep all the 24 variables for validity study.

3.7.2. Validity Study

The goal of a validity study is to determine if the variables chosen for the study are capable of reflecting the nature and relationship of their own. Before beginning with the validity assessment, it is critical to determine whether the data set is large enough to do a factor analysis. KMO Bartlett's experiment will provide us some insight into this. If the KMO number is larger than 0.70, we can perform the factor analysis. Component analysis is a data reduction technique that assists in combining variables into a single common element. Factors not related to a single component may be removed from the model. To begin, we'll utilise exploratory factor analysis to estimate the number of variables that may be retained (Burns et al. 2009; Reio et al. 2015).

Table 3.11. KMO Bartlett Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.781
Bartlett's Test of Sphericity	Approx. Chi-Square	381.287
	df	66
	Sig.	.000

the researcher further proceeded with factor analysis because the KMO value was more than 0.70 and the Bartlett's test of sphericity is significant. The results of the preliminary exploratory factor analysis are provided in the table below.

Table 3.12. Communalities

	Initial	Extraction
Variable_1	1.000	.879
Variable_2	1.000	.925
Variable_3	1.000	.872
Variable_4	1.000	.900
Variable_5	1.000	.769
Variable_6	1.000	.707
Variable_7	1.000	.830
Variable_8	1.000	.750
Variable_9	1.000	.666
Variable_10	1.000	.619
Variable_11	1.000	.690
Variable_12	1.000	.881
Variable_13	1.000	.905
Variable_14	1.000	.937
VAriable_15	1.000	.904
Variable_16	1.000	.796
Variable_17	1.000	.919
Variable_18	1.000	.778
Variable_19	1.000	.787
Variable_20	1.000	.867
Variable_21	1.000	.779

Variable_22	1.000	.856
Variable_23	1.000	.787
Variable_24	1.000	.906
Extraction Method: Principal Component Analysis.		

Table 3.13. Total Variable Explained

Total Variance Explained						
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.087	25.364	25.364	6.087	25.364	25.364
2	4.095	17.061	42.425	4.095	17.061	42.425
3	2.640	10.999	53.423	2.640	10.999	53.423
4	2.336	9.735	63.158	2.336	9.735	63.158
5	1.651	6.880	70.038	1.651	6.880	70.038
6	1.579	6.579	76.617	1.579	6.579	76.617
7	1.321	5.504	82.121	1.321	5.504	82.121
8	.807	3.361	85.482			
9	.650	2.708	88.189			
10	.502	2.091	90.280			
11	.439	1.830	92.109			
12	.293	1.223	93.332			

13	.277	1.155	94.487			
14	.253	1.055	95.542			
15	.232	.969	96.511			
16	.192	.800	97.311			
17	.164	.685	97.996			
18	.107	.444	98.440			
19	.095	.395	98.835			
20	.086	.357	99.192			
21	.072	.301	99.493			
22	.058	.241	99.734			
23	.044	.183	99.917			
24	.020	.083	100.000			
Extraction Method: Principal Component Analysis.						

Table 3.8 shows the communality values for each variable, which are extremely high. Table 3.9 demonstrates that 7 components explain roughly 80% of the variation in the data set. As a result, the original component matrix has a greater spread.

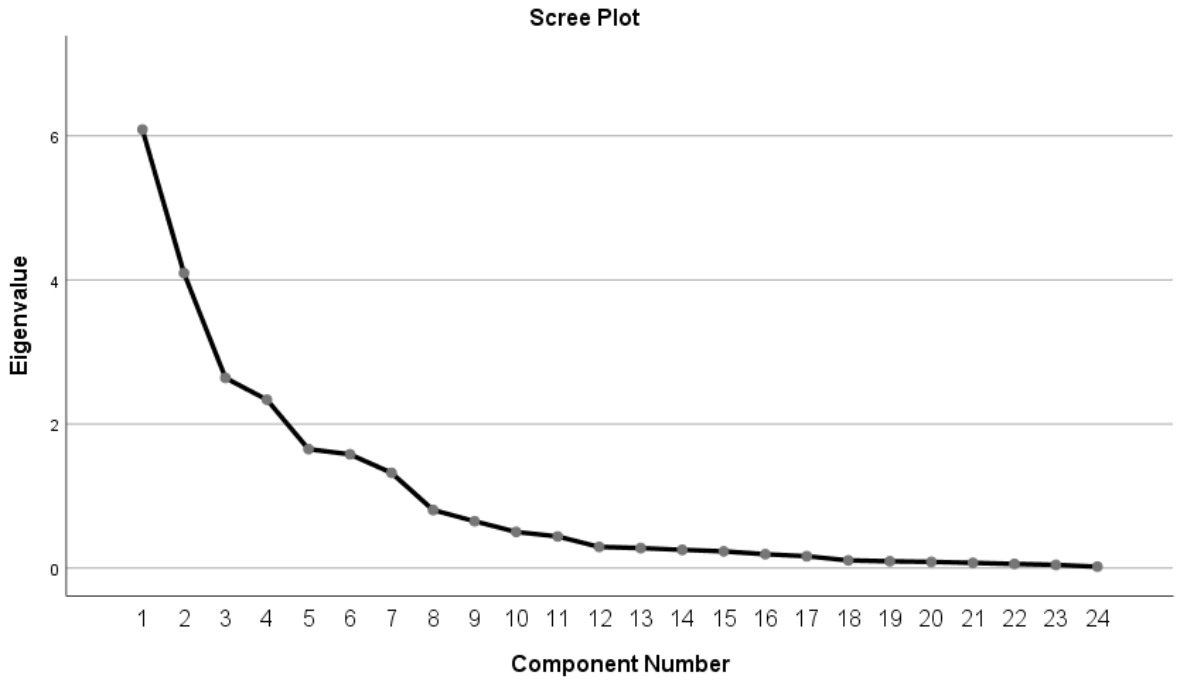
Table 3.14. Initial Component Matrix

Component Matrix[a]							
	Component						
	1	2	3	4	5	6	7
Variable_1	.833						
Variable_2	.863						
Variable_3	.800						
Variable_4	.850						
Variable_5	.667						.434
Variable_6	.601						
Variable_7	.685						
Variable_8		.412			.612		
Variable_9		.546					
Variable_10		.490				.499	
Variable_11		.635				.466	
Variable_12		.609	.575				
Variable_13		.654	.561				
Variable_14		.728	.445				
VAriable_15	.458		.467	-.641			
Variable_16	.461			-.671			
Variable_17			.449	-.678			
Variable_18	.498	.547			-.414		
Variable_19	.605	.485					
Variable_20	.600	.434			-.419		

Variable_21	.404	.551			-.497		
Variable_22		-.434	.601				
Variable_23			.451	.401			
Variable_24			.591	.408			
Extraction Method: Principal Component Analysis.							

Despite the fact that these seven components explain about 80% of the variation in the data, there is a significant degree of dispersion and cross loading across their constructions. As a consequence, we may conclude that some of the factors are unimportant for this study. The researcher utilised Scree plot techniques to determine how many components to keep. We can only keep as many components as there are bends in the line using this strategy. The curve is showing below:

Figure 3.1. Scree Plot



As, the bend in the curve is visible after component 3. It has been decided to keep 3 components. The subsequent outcomes are shown below

Table 3.15. Rotated Component Matrix after applying Varimax Technique

Rotated Component Matrix[a]			
	Component		
	1	2	3
Variable_1	.820		
Variable_2	.893		
Variable_3	.773		
Variable_4	.815		
Variable_5	.563		
Variable_6	.548		
Variable_7	.551		.435
Variable_8			
Variable_9		.604	
Variable_10		.491	
Variable_11		.497	
Variable_12		.825	
Variable_13		.856	
Variable_14		.860	
Variable_15			.617
Variable_16			.489
Variable_17			.607

Variable_18	.631		
Variable_19	.687		
Variable_20	.748		
Variable_21	.559		
Variable_22			.772
Variable_23			.611
Variable_24			.716
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.[a]			

As the table shows both zero loadings and cross loadings, it is important to remove these variables as they are not relevant in the present study. The final rotated component matrix is shown in table 3.16.

Table 3.16. Final Rotated Component Matrix

Rotated Component Matrix[a]			
	Component		
	1	2	3
Variable_1	.846		
Variable_3	.826		
Variable_4	.813		
Variable_5	.781		
Variable_7	.808		
Variable_12			.907
Variable_13			.943
Variable_14			.949
Variable_18		.858	
Variable_19		.832	
Variable_20		.877	
Variable_21		.818	
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.[a]			
a. Rotation converged in 5 iterations.			

The table shows 12 variables are remained for the final study as these variables are not showing any kind of cross loadings.

Table 3.17. Component Transformation Matrix

Component Transformation Matrix			
Component	1	2	3
1	.764	.645	-.031
2	-.306	.403	.862
3	.568	-.649	.506
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			

The component transformation matrix also supports the data's discriminant validity. As indicated in the table above, discriminant validity can be established if there is a low correlation among three different components. Thus, these 12 variables are finally included in the final study. The list is shown in the table 3.18.

Table 3.18. Final List of Variables

Factor	Statement	Factor 1	Factor 2	Factor 3	Communalities
Access to Productive Resources	**Variable 1:** Level of education of the workforce	**.846**			**.795**
	Variable 3: Skill acquisition	**.826**			**.758**
	Variable 4: Access to market	**.813**			**.766**
	Variable 5: Access to credit	**.781**			**.614**
	Variable 7: Lack of training	**.808**			**.657**
Supportive Role of Govt and Private Organizations	**Variable 12:** Government support to improve access to finance			**.907**	**.831**
	Variable 13: Development of			**.943**	**.900**

	market linkage through technology				
	Variable 14: Increased participation of private organizations through PPP model			**.949**	**.926**
Long Term Support	**Variable 18:** Improved social protection		**.858**		**.768**
	Variable 19: Long term skill training		**.832**		**.734**
	Variable 20: Commercialization of agricultural products		**.877**		**.838**
	Variable 21: Development of rural infrastructure		**.818**		**.716**
Total Variance Explained		**77.52%**			

3.8. Hypothesis Development

Based on the result the study helped to develop main hypotheses.

Hypothesis 1: Access to productive resources have an impact on quality of employment in the study districts.

Hypothesis 2: Supportive role of government and private sectors have an impact on quality of employment in the study districts.

Hypothesis 3: Long term support to create productive employment have an impact on quality of employment in the study districts.

These 3 main hypotheses are based on some sub – hypotheses.

Sub – Hypotheses for Hypothesis 1:

H1a: There is no significant difference of opinion exists among the respondents of two study districts that level of education has a direct link with quality of employment.

H2a: There is no significant difference of opinion exists among the respondents of two study districts that skill acquisition has a direct link with quality of employment.

H3a: There is no significant difference of opinion exists among the respondents of two study districts that access to market has a direct link with quality of employment.

H4a: There is no significant difference of opinion exists among the respondents of two study districts that access to credit has a direct link with quality of employment.

H5a: There is no significant difference of opinion exists among the respondents of two study districts that lack of training has a direct link with quality of employment.

Sub – Hypotheses for Hypothesis 2

H6a: There is no significant difference of opinion exists among the respondents of two study districts that government support to improve access to finance has a direct link with quality of employment.

H7a: There is no significant difference of opinion exists among the respondents of the two study districts that the development of market linkage through technology has a direct link with the quality of employment.

H8a: There is no significant difference of opinion exists among the respondents of the two study districts that increased participation through PPP model has a direct link with quality of employment.

Sub – Hypotheses for Hypothesis 3

H9a: There is no significant difference of opinion exists among the respondents of two study districts that improved social protection has a direct link with quality of employment.

H10a: There is no significant difference of opinion exists among the respondents of two study districts that long term skill training has a direct link with quality of employment.

H11a: There is no significant difference of opinion exists among the respondents of two study districts that commercialization of agricultural products has a direct link with quality of employment.

H12a: There is no significant difference of opinion exists among the respondents of two study districts that development of rural infrastructure has a direct link with quality of employment.

3.9. Statistical tools

On the basis of the data collected and the research objectives identified, the researcher has decided to apply percentage table, bar diagram, t test and weighted average score to analyse the data.

CHAPTER - IV

DATA ANALYSIS AND INTERPRETATION

CHAPTER - IV

DATA ANALYSIS AND INTERPRETATION

4. Introduction

This section of the study is going to focus on the data received through primary survey. The survey conducted for a period of two months helped to collect data from 372 respondents spread over two districts of West Bengal. The main objective of this section is to get an idea about the research objectives identified earlier. As the main objective is to identify the quality of employment in non – farm sector, the information collected with the help of structured questionnaire is able to help to get meaningful information. The questionnaire was divided into two segments to collect the relevant information. Section A comprises information about basic demographic information and type of non – farm sectors where the respondents are working. The second section addresses the responses related to research variables identified for this study through literature review. Initially, 24 variables were identified but after reliability and validity study only 12 variables were found to be relevant and incorporated in the final study. 12 hypotheses were also developed with the help of these 12 variables. These variables are also used to collect information about quality of employment in the non – farm sector in the study area. The weightage used in the Likert scale is used as a score to calculate the weighted average score for each of the variables. The same is then proposed to compare two identified districts, i.e., Nadia and Purulia. The details of the study results are discussed subsequently.

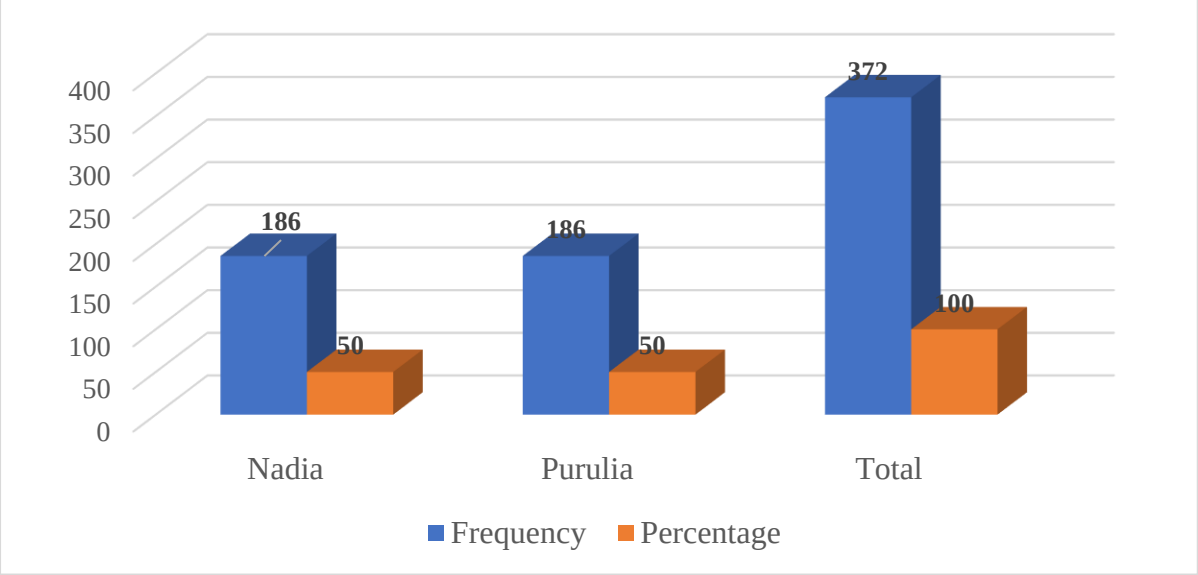
4.1. Analysis of Data Related to Demographic and General Information

Table 4.1. District wise Distribution of the Respondents

District	Frequency	Percentage
Nadia	186	50
Purulia	186	50
Total	372	100

Source: Survey Data

Figure 4.1. District wise Distribution of the Respondents



Source: Survey Data

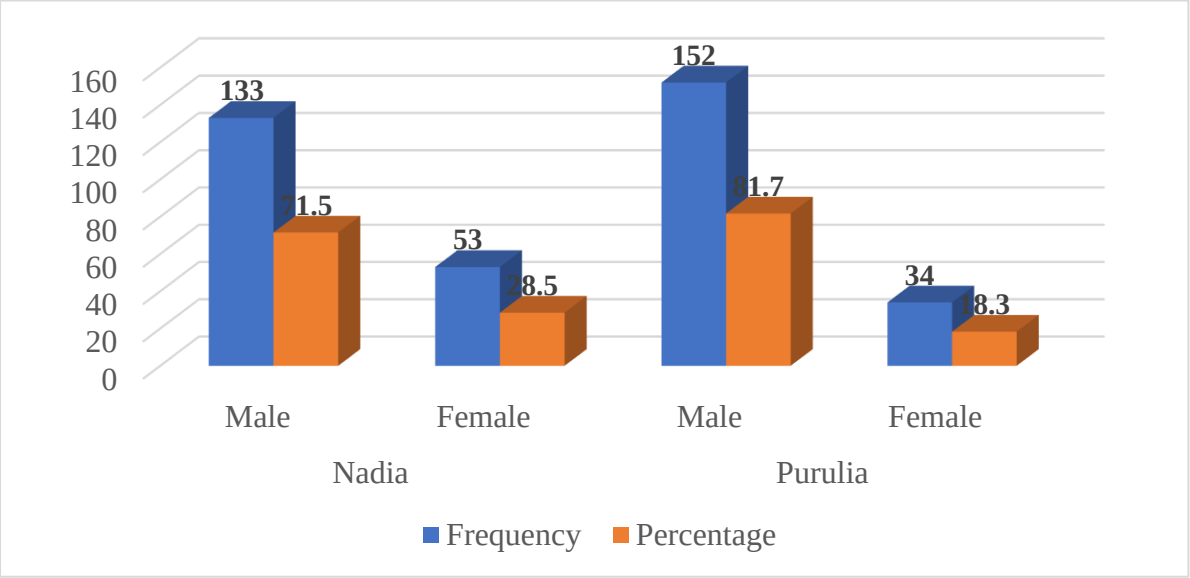
Observation: The result shows that out of the total 372 respondents, 50% are from Nadia district and rest of the 50% are from Purulia district. The data was collected in such a manner so that equal representation should be there from both the districts. The equal representation from both the districts helps to compare the quality of employment.

Table 4.2. Gender wise Distribution of the Respondents

District	Gender	Frequency	Percentage
Nadia	Male	133	71.5
	Female	53	28.5
Purulia	Male	152	81.7
	Female	34	18.3

Source: Survey Data

Figure 4.2. Gender wise Distribution of the Respondents



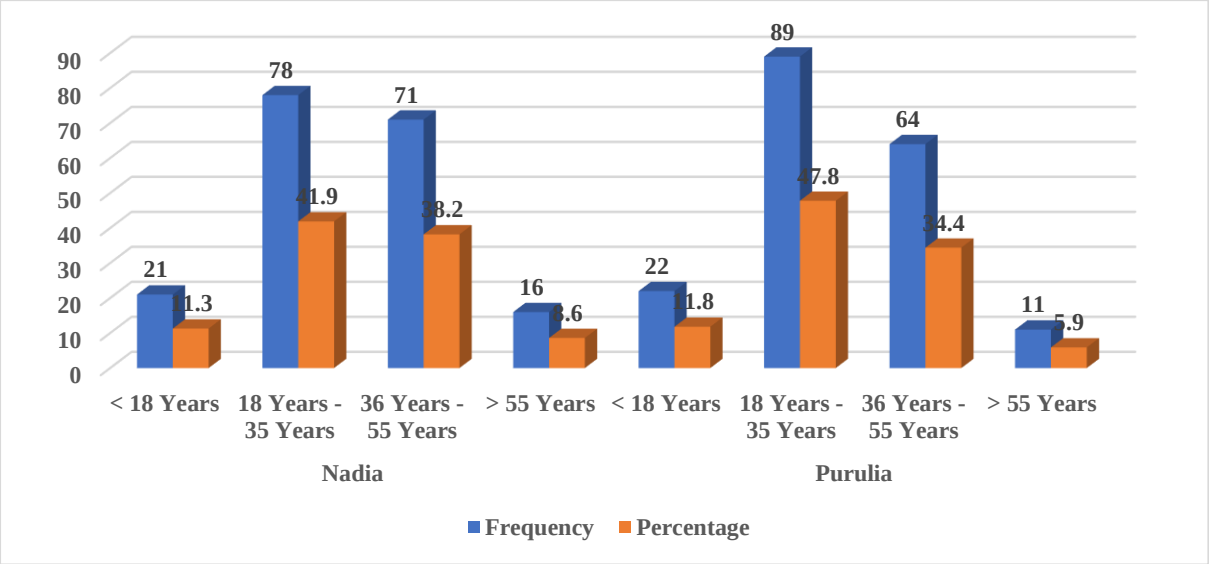
Observation: The table 4.2 shows gender wise distribution of the respondents. It can be seen that irrespective of the districts, participation of women members is less than their male members in the present study. The same is observed during primary survey as well. The response from women members were significantly low. This shows the dominance of male members over their female counterpart.

Table 4.3. Age wise Distribution of the Respondents

District	Age	Frequency	Percentage
Nadia	< 18 Years	21	11.3
	18 Years - 35 Years	78	41.9
	36 Years - 55 Years	71	38.2
	> 55 Years	16	8.6
Purulia	< 18 Years	22	11.8
	18 Years - 35 Years	89	47.8
	36 Years - 55 Years	64	34.4
	> 55 Years	11	5.9

Source: Survey Data

Figure 4.3. Age wise Distribution of the Respondents



Source: Survey Data

Observation: Table 4.3 shows age wise distribution of the respondents. The data reveals that in case of Nadia around 42% of the respondents are in the age bracket 18 years to 35 Years. A higher number of concentrations of the respondents can be seen between the age bracket 18 Years to 55 years. Around 80% of the respondents from Nadia district are in this group. In case

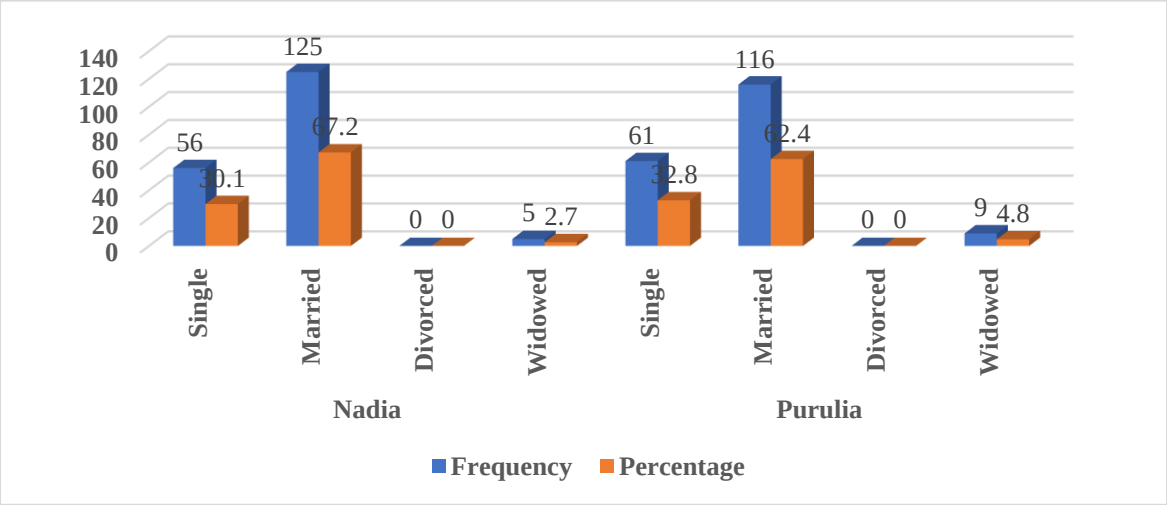
of Purulia district, this stands at 82% which is more than Nadia district. Although, in both the districts, around 12% respondents are working who are coming under less than 18 years of age bracket, this number is relevant in the sense that most of these respondents are mainly working in informal sectors doing odd jobs. But they are playing a crucial role in generating earnings for his or her family

Table 4.4. Marital Status wise Distribution of the Respondents

District	Marital Status	Frequency	Percentage
Nadia	Single	56	30.1
	Married	125	67.2
	Divorced	0	0.0
	Widowed	5	2.7
Purulia	Single	61	32.8
	Married	116	62.4
	Divorced	0	0.0
	Widowed	9	4.8

Source: Survey Data

Figure 4.4. Marital Status wise Distribution of the Respondents



Source: Survey Data

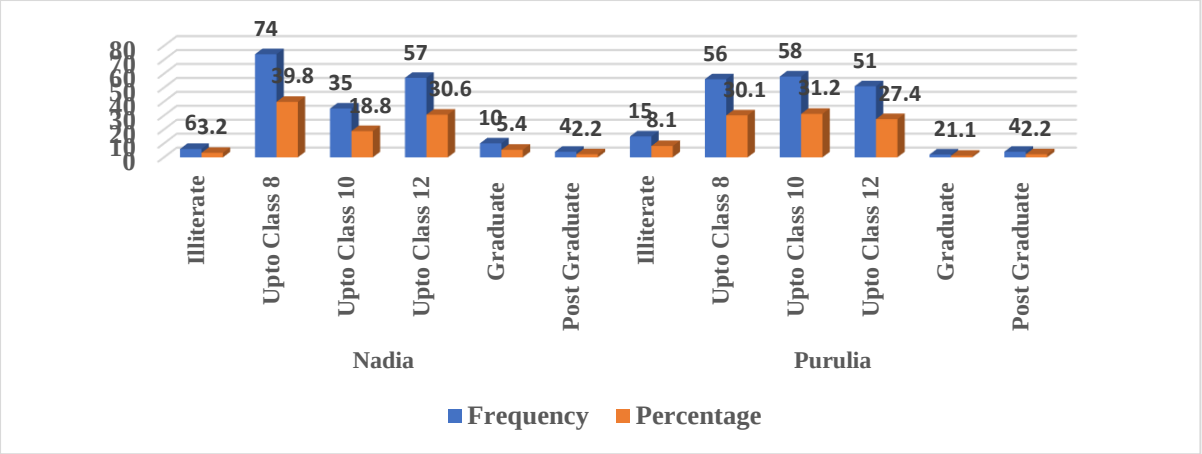
Observation: Table 4.4 shows the marital status wise distribution of the respondents. It suggests that most of the respondents are married in the districts. In case of Purulia district number of single members are slightly more than the Nadia district. The responsibility of family sometimes forces them to look for non – farm income generating options so as to increase overall family income.

Table 4.5. Level of Education wise Distribution of the Respondents

District	Level of Education	Frequency	Percentage
Nadia	Illiterate	6	3.2
	Upto Class 8	74	39.8
	Upto Class 10	35	18.8
	Upto Class 12	57	30.6
	Graduate	10	5.4
	Post Graduate	4	2.2
Purulia	Illiterate	15	8.1
	Upto Class 8	56	30.1
	Upto Class 10	58	31.2
	Upto Class 12	51	27.4
	Graduate	2	1.1
	Post Graduate	4	2.2

Source: Survey Data

Figure 4.5. Level of Education wise Distribution of the Respondents



Source: Survey Data

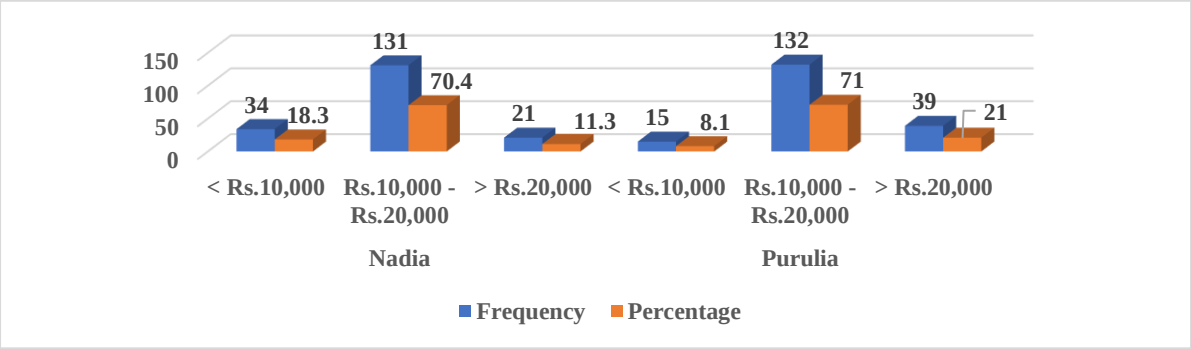
Observation: Table 4.5 shows level of education wise distribution of the respondents in two study districts. It can be seen that majority of the respondents in both the districts have qualification upto class 12. In case of Nadia district, around 40% of the respondents completed class 8 education. In case of Purulia majority of the respondents completed education upto class 10. A marginal number of respondents still there in both the districts who are illiterate. The percentage of illiterate is more in Purulia district than the Nadia district. Percentage of participants having UG qualification is also less in Purulia district than Nadia district.

Table 4.6. Monthly Household Income Wise Distribution of the Respondents

District	Monthly Household Income	Frequency	Percentage
Nadia	< Rs.10,000	34	18.3
	Rs.10,000 - Rs.20,000	131	70.4
	> Rs.20,000	21	11.3
Purulia	< Rs.10,000	15	8.1
	Rs.10,000 - Rs.20,000	132	71.0
	> Rs.20,000	39	21.0

Source: Survey Data

Figure 4.6. Monthly Household Income wise Distribution of the Respondents



Source: Survey Data

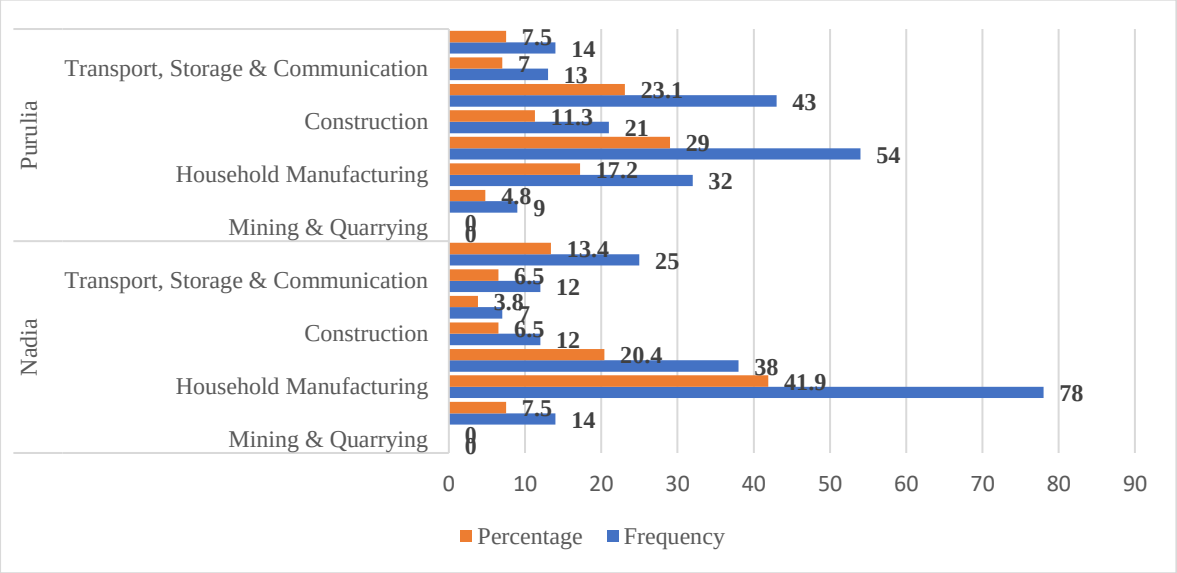
Observation: Table 4.6 shows the monthly household income of the respondents in the study district. The result shows that in both the districts, majority of the respondents lying in the income bracket Rs. 10,000 to Rs. 20,000. This is followed by higher income bracket. It can be observed that around 21% of the respondents from Purulia district are in highest income bracket in comparison to 11% respondents from Nadia. Number of respondents coming under low-income bracket is also significantly low in case of Purulia in comparison to Nadia. This shows that average household income in Purulia is higher than Nadia.

Table 4.7. District wise Category of Non – Farm Sectors where Respondents are Working

District	Category	Frequency	Percentage
Nadia	Mining & Quarrying	0	0.0
	Manufacturing	14	7.5
	Household Manufacturing	78	41.9
	Non - Household Manufacturing	38	20.4
	Construction	12	6.5
	Trade & Commerce	7	3.8
	Transport, Storage & Communication	12	6.5
	Other Services	25	13.4
Purulia	Mining & Quarrying	0	0.0
	Manufacturing	9	4.8
	Household Manufacturing	32	17.2
	Non - Household Manufacturing	54	29.0
	Construction	21	11.3
	Trade & Commerce	43	23.1
	Transport, Storage & Communication	13	7.0
	Other Services	14	7.5

Source: Survey Data

Figure 4.7. District wise Category of Non – Farm Sectors where Respondents are Working



Source: Survey Data

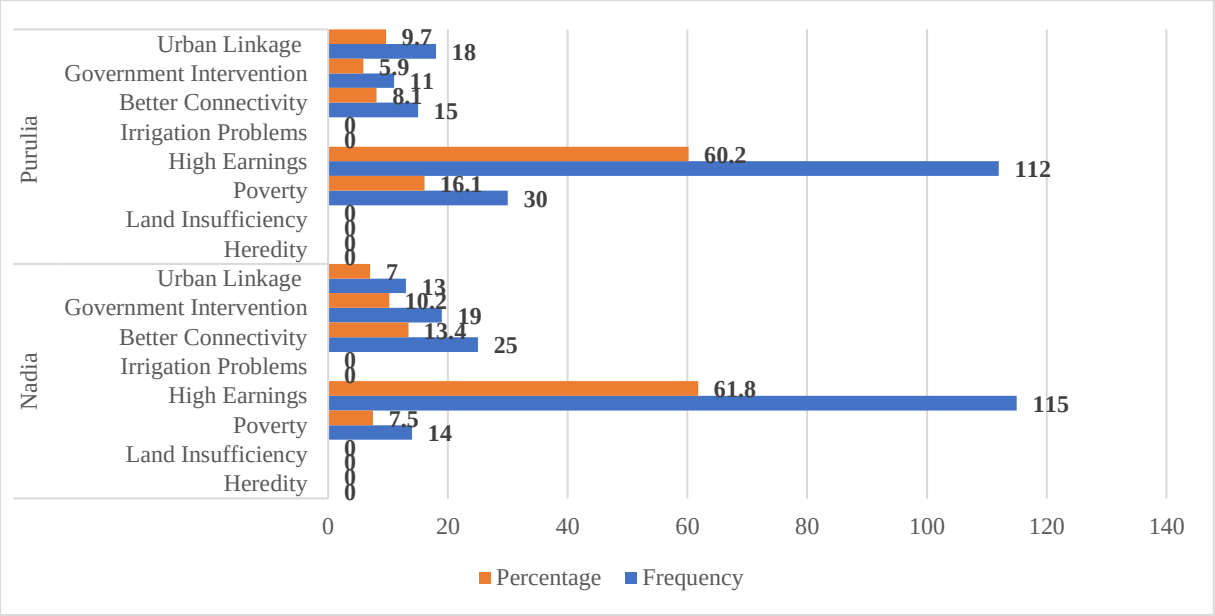
Observation: The table shows district wise category of non – farm sectors where respondents are working. It can be seen that majority of the respondents from Nadia are working in manufacturing sector (either household or non-household). As Nadia district is famous for saree production, this seems to be main source of earnings for many workers. In case of Purulia, although majority of the respondents are engaged in manufacturing sectors but around 23% are engaged in trade and commerce (shop owners, transport services, hotel business etc.). Local tourism destinations are mainly driving people to work in this segment. Some respondents are working in the construction sector as well.

Table 4.8. District wise Reasons for Opting Non – Farm Employment

District	Reasons	Frequency	Percentage
Nadia	Heredity	0	0.0
	Land Insufficiency	0	0.0
	Poverty	14	7.5
	High Earnings	115	61.8
	Irrigation Problems	0	0.0
	Better Connectivity	25	13.4
	Government Intervention	19	10.2
	Urban Linkage	13	7.0
Purulia	Heredity	0	0.0
	Land Insufficiency	0	0.0
	Poverty	30	16.1
	High Earnings	112	60.2
	Irrigation Problems	0	0.0
	Better Connectivity	15	8.1
	Government Intervention	11	5.9
	Urban Linkage	18	9.7

Source: Survey Data

Figure 4.8. District-wise Reasons for Opting Non – Farm Employment



Observation: The table shows irrespective of the respondents from two districts, the major reason for opting for non–farm employment is increased earnings. This indicates income from farm sector is not that much significant or that income is not sufficient to increase the standard of living. It may be the case that the young generations are not interested to engage themselves in farm activities. So, as a result of this combined impact, other factors seem to be creating lesser impact than income factor.

4.2. Analysis of Data Related to Research Hypotheses

Hypothesis 1: Access to productive resources have an impact on quality of employment in the study districts.

Hypothesis 1a

H1a: There is no significant difference of opinion exists among the respondents of two study districts that level of education has a direct link with quality of employment.

H1b: There is a significant difference of opinion exists among the respondents of two study districts that level of education has a direct link with quality of employment.

Table 4.9. District wise response Related to Hypothesis 1a

District	Frequency	Mean	SD	t Value	Sig.
Nadia	186	4.00	.792	2.921	.004
Purulia	186	4.24	.806		

Source: Survey Data

Observation: Table 4.9 shows the result of the hypothesis related to Hypothesis 1a. It can be seen that the t significant value is less than 5% level of significance (p=0.004) so we can reject the null hypothesis and accept the alternative hypothesis. Hence, it can be said that a significant difference of opinion exists among the respondents of two study districts that level of education has a direct link with quality of employment.

Hypothesis 2a

H2a: There is no significant difference of opinion exists among the respondents of two study districts that skill acquisition has a direct link with quality of employment.

H2b: There is a significant difference of opinion exists among the respondents of two study districts that skill acquisition has a direct link with quality of employment.

Table 4.10. District wise response Related to Hypothesis 2a

District	Frequency	Mean	SD	t Value	Sig.
Nadia	186	3.95	.776	-2.153	.032
Purulia	186	4.12	.813		

Source: Survey Data

Observation: Table 4.10 shows the result of the hypothesis related to Hypothesis 2a. It can be seen that the t significant value is less than 5% level of significance (p=0.032) so we can reject the null hypothesis and accept the alternative hypothesis. Hence, it can be said that a significant difference of opinion exists among the respondents of two study districts that skill acquisition has a direct link with quality of employment.

Hypothesis 3a

H3a: There is no significant difference of opinion exists among the respondents of two study districts that access to market has a direct link with quality of employment.

H3b: There is a significant difference of opinion exists among the respondents of two study districts that access to market has a direct link with quality of employment.

Table 4.11. District-wise response Related to Hypothesis 3a

District	Frequency	Mean	SD	t Value	Sig.
Nadia	186	3.82	.829	-3.604	.000
Purulia	186	4.15	.924		

Source: Survey Data

Observation: Table 4.11 shows the result of the hypothesis related to Hypothesis 3a. It can be seen that the t significant value is less than 5% level of significance (p=0.000) so we can reject

the null hypothesis and accept the alternative hypothesis. Hence, it can be said that a significant difference of opinion exists among the respondents of two study districts that access to market has a direct link with quality of employment.

Hypothesis 4a

H4a: There is no significant difference of opinion exists among the respondents of two study districts that access to credit has a direct link with quality of employment.

H4b: There is a significant difference of opinion exists among the respondents of two study districts that access to credit has a direct link with quality of employment.

Table 4.12 District-wise response Related to Hypothesis 4a

District	Frequency	Mean	SD	t Value	Sig.
Nadia	186	4.10	.751	-2.559	.011
Purulia	186	4.30	.789		

Source: Survey Data

Observation: Table 4.12 shows the result of the hypothesis related to Hypothesis 4a. It can be seen that the t significant value is less than 5% level of significance (p=0.011) so we can reject the null hypothesis and accept the alternative hypothesis. Hence, it can be said that a significant difference of opinion exists among the respondents of the two study districts that access to credit has a direct link with the quality of employment.

Hypothesis 5a

H5a: There is no significant difference of opinion exists among the respondents of the two study districts that lack of training has a direct link with the quality of employment.

H5b: There is a significant difference of opinion exists among the respondents of the two study districts that lack of training has a direct link with the quality of employment.

Table 4.13 District-wise response Related to Hypothesis 5a

District	Frequency	Mean	SD	t Value	Sig.
Nadia District	186	3.94	.886	-4.537	.000
Purulia	186	4.33	.803		

Source: Survey Data

Observation: Table 4.13 shows the result of the hypothesis related to Hypothesis 5a. It can be seen that the t significant value is less than 5% level of significance (p=0.000) so we can reject the null hypothesis and accept the alternative hypothesis. Hence, it can be said that a significant difference of opinion exists among the respondents of two study districts that lack of training has a direct link with quality of employment.

Hypothesis 2: Supportive role of government and private sectors have an impact on quality of employment in the study districts.

Hypothesis 6a

H6a: There is no significant difference of opinion exists among the respondents of two study districts that government support to improve access to finance has a direct link with quality of employment.

H6b: There is a significant difference of opinion exists among the respondents of two study districts that government support to improve access to finance has a direct link with quality of employment.

Table 4.14 District-wise response Related to Hypothesis 6a

District	Frequency	Mean	SD	t Value	Sig.
Nadia	186	3.99	.906	-3.963	.000
Purulia	186	4.35	.846		

Source: Survey Data

Observation: Table 4.14 shows the result of the hypothesis related to Hypothesis 6a. It can be seen that the t significant value is less than 5% level of significance (p=0.000) so we can reject the null hypothesis and accept the alternative hypothesis. Hence, it can be said that a significant difference of opinion exists among the respondents of two study districts that government support to improve access to finance has a direct link with quality of employment

Hypothesis 7a

H7a: There is no significant difference of opinion exists among the respondents of two study districts that development of market linkage through technology has a direct link with quality of employment.

H7b: There is a significant difference of opinion exists among the respondents of two study districts that development of market linkage through technology has a direct link with quality of employment.

Table 4.15 District-wise response Related to Hypothesis 7a

District	Frequency	Mean	SD	t Value	Sig.
Nadia	186	3.97	.950	-5.089	.000
Purulia	186	4.44	.818		

Source: Survey Data

Observation: Table 4.15 shows the result of the hypothesis related to Hypothesis 7a. It can be seen that the t significant value is less than 5% level of significance (p=0.000) so we can reject the null hypothesis and accept the alternative hypothesis. Hence, it can be said that a significant difference of opinion exists among the respondents of two study districts that development of market linkage through technology has a direct link with quality of employment.

Hypothesis 8a

H8a: There is no significant difference of opinion exists among the respondents of two study districts that increased participation through PPP model has a direct link with quality of employment.

H8b: There is a significant difference of opinion exists among the respondents of two study districts that increased participation through PPP model has a direct link with quality of employment.

Table 4.16 District-wise response Related to Hypothesis 8a

District	Frequency	Mean	SD	t Value	Sig.
Nadia	186	3.88	.803	-.851	.395
Purulia	186	3.96	.899		

Source: Survey Data

Observation: Table 4.16 shows the result of the hypothesis related to Hypothesis 8a. It can be seen that the t significant value is more than 5% level of significance (p=0.395) so we can accept the null hypothesis and reject the alternative hypothesis. Hence, it can be said that no significant difference of opinion exists among the respondents of two study districts that increased participation through PPP model has a direct link with quality of employment.

Hypothesis 3

Long term support to create productive employment have an impact on quality of employment in the study districts.

Hypothesis 9a

H9a: There is no significant difference of opinion exists among the respondents of two study districts that improved social protection has a direct link with quality of employment.

H9b: There is a significant difference of opinion exists among the respondents of two study districts that improved social protection has a direct link with quality of employment.

Table 4.17 District-wise response Related to Hypothesis 9a

District	Frequency	Mean	SD	t Value	Sig.
Nadia	186	3.82	.777	-3.177	.002
Purulia	186	4.10	.945		

Source: Survey Data

Observation: Table 4.17 shows the result of the hypothesis related to Hypothesis 9a. It can be seen that the t significant value is less than 5% level of significance (p=0.002) so we can reject the null hypothesis and accept the alternative hypothesis. Hence, it can be said that a significant difference of opinion exists among the respondents of two study districts that improved social protection has a direct link with quality of employment.

Hypothesis 10a

H10a: There is no significant difference of opinion exists among the respondents of two study districts that long term skill training has a direct link with quality of employment.

H10b: There is a significant difference of opinion exists among the respondents of two study districts that long term skill training has a direct link with quality of employment.

Table 4.18 District-wise response Related to Hypothesis 10a

District	Frequency	Mean	SD	t Value	Sig.
Nadia	186	3.90	.779	-1.674	.095
Purulia	186	4.06	1.004		

Source: Survey Data

Observation: Table 4.18 shows the result of the hypothesis related to Hypothesis 10a. It can be seen that the t significant value is more than 5% level of significance (p=0.095) so we can accept the null hypothesis and reject the alternative hypothesis. Hence, it can be said that no significant difference of opinion exists among the respondents of two study districts that long term skill training has a direct link with quality of employment.

Hypothesis 11a

H11a: There is no significant difference of opinion exists among the respondents of two study districts that commercialization of agricultural products has a direct link with quality of employment.

H11b: There is a significant difference of opinion exists among the respondents of two study districts that commercialization of agricultural products has a direct link with quality of employment.

Table 4.19 District-wise response Related to Hypothesis 11a

District	Frequency	Mean	SD	t Value	Sig.
Nadia	186	3.98	.749	-.690	.491
Purulia	186	4.04	.897		

Source: Survey Data

Observation: Table 4.19a shows the result of the hypothesis related to Hypothesis 11a. It can be seen that the t significant value is more than 5% level of significance (p=0.491) so we can accept the null hypothesis and reject the alternative hypothesis. Hence, it can be said that no significant difference of opinion exists among the respondents of two study districts that commercialization of agricultural products has a direct link with quality of employment.

Hypothesis 12a

H12a: There is no significant difference of opinion exists among the respondents of two study districts that development of rural infrastructure has a direct link with quality of employment.

H12b: There is a significant difference of opinion exists among the respondents of two study districts that development of rural infrastructure has a direct link with quality of employment.

Table 4.20 District-wise response Related to Hypothesis 12a

District	Frequency	Mean	SD	t Value	Sig.
Nadia	186	3.84	.916	-.493	.622
Purulia	186	3.89	1.171		

Source: Survey Data

Observation: Table 4.20 shows the result of the hypothesis related to Hypothesis 12a. It can be seen that the t significant value is more than 5% level of significance (p=0.622) so we can

accept the null hypothesis and reject the alternative hypothesis. Hence, it can be said that no significant difference of opinion exists among the respondents of two study districts that development of rural infrastructure has a direct link with quality of employment.

4.3. Measurement of Quality of Employment by weighted value in two Study Districts

To develop the quality of employment using weighted value, the researcher conducted focus group interview among the target respondents of the two study districts and validated the 12 variables that are initially found through review of literature. The study also helps to develop the weight for each of these 12 variables. It was decided that the weight of the Likert Scale is considered as standard weight to determine degree of association with the research variables among the target audience. A weight of above 3 is considered to be favourable for the variable and anything less than 3 is considered to be not favourable. The result of the study is discussed subsequently

Table 4.21. District and 'Level of education of the workforce'(Variable 1) Cross Tabulation

District and 'Level of education of the workforce' (Variable 1) Cross Tabulation								
	Response Related to 'Level of education of the workforce'(Variable 1) in Likert Scale					**Total**	**Weighted Score**	**Average Score**
Districts	**Strongly Disagree (1)**	**Disagree (2)**	**Neutral (3)**	**Agree (4)**	**Strongly Agree (5)**			
Nadia	1	10	22	108	45	186	744	4.0
Purulia	1	8	13	87	77	186	789	4.2

Source: Survey Data

Observation: The result shows that both the districts are in favour of the variable 1 (Level of education of the workforce). It can be seen that respondents from Purulia district are more in favour of the statement than the respondents from Nadia district. Although, both the groups having positive feelings that level of education helps to improve quality of employment but respondents from Purulia are more inclined towards this factor.

Table 4.22. District and 'Skill acquisition' (Variable 3) Cross Tabulation

District and 'Skill acquisition' (Variable 3) Cross Tabulation								
	Response Related to 'Skill acquisition' (Variable 3) in Likert Scale					**Total**	**Weighted Score**	**Average Score**
Districts	**Strongly Disagree (1)**	**Disagree (2)**	**Neutral (3)**	**Agree (4)**	**Strongly Agree (5)**			
Nadia	1	9	28	109	39	186	734	3.9
Purulia	1	8	21	93	63	186	767	4.1

Source: Survey Data

Observation: The result suggests that respondents from both the groups believe that skill acquisition is an important factor to improve quality of employment. A district level comparison suggests that respondents from Purulia district are more in favour of the statement than the respondents from Nadia districts. This means respondents of Purulia district have more faith on this particular factor than the respondents from Nadia district.

Table 4.23. District and 'Access to market' (Variable 4) Cross Tabulation

District and 'Access to market' (Variable 4) Cross Tabulation								
	Response Related to 'Access to market' (Variable 4) in Likert Scale					Total	Weighted Score	Average Score
Districts	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)			
Nadia	0	16	35	101	34	186	711	3.8
Purulia	3	9	22	75	77	186	772	4.2

Source: Survey Data

Observation: The result suggests that respondents from both the groups believe that access to market is an important factor to improve quality of employment. A district level comparison suggests that respondents from Purulia district are more in favour of the statement than the respondents from Nadia districts. This means respondents of Purulia district have more faith on this particular factor than the respondents from Nadia district.

Table 4.24. District and 'Access to credit' (Variable 5) Cross Tabulation

District and 'Access to credit' (Variable 5) Cross Tabulation								
	Response Related to 'Access to credit' (Variable 5) in Likert Scale					Total	Weighted Score	Average Score
Districts	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)			
Nadia	0	9	17	107	53	186	762	4.1
Purulia	1	6	14	80	85	186	800	4.3

Source: Survey Data

Observation: The result suggests that respondents from both the groups believe that access to credit is an important factor to improve quality of employment. A district level comparison suggests that respondents from Purulia district are more in favour of the statement than the respondents from Nadia districts. This means respondents of Purulia district have more faith on this particular factor than the respondents from Nadia district.

Table 4.25. District and 'Lack of training' (Variable 7) Cross Tabulation

District and 'Lack of training' (Variable 7) Cross Tabulation								
	Response Related to 'Lack of training' (Variable 7) in Likert Scale					**Total**	**Weighted Score**	**Average Score**
Districts	**Strongly Disagree (1)**	**Disagree (2)**	**Neutral (3)**	**Agree (4)**	**Strongly Agree (5)**			
Nadia	4	8	31	96	47	186	732	3.9
Purulia	3	3	12	79	89	186	806	4.3

Source: Survey Data

Observation: The result suggests that respondents from both the groups believe that lack of training is an important factor which is affecting quality of employment. A district level comparison suggests that respondents from Purulia district are more in favour of the statement than the respondents from Nadia districts. This means respondents of Purulia district have more faith on this particular factor than the respondents from Nadia district.

Table 4.26. District and 'Government support to improve access to finance' (Variable 12) Cross Tabulation

District and 'Government support to improve access to finance' (Variable 12) Cross Tabulation								
	Response Related to 'Government support to improve access to finance' (Variable 12) in Likert Scale					Total	Weighted Score	Average Score
Districts	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)			
Nadia	1	16	23	90	56	186	742	4.0
Purulia	2	4	21	59	100	186	809	4.3

Source: Survey Data

Observation: The result suggests that respondents from both the groups believe that government support to improve access to finance is an important factor which helps to grow quality of employment. A district level comparison suggests that respondents from Purulia district are more in favour of the statement than the respondents from Nadia districts. This means respondents of Purulia district have more faith on this particular factor than the respondents from Nadia district.

Table 4.27. District and 'Development of market linkage'(Variable 13) Cross Tabulation

District and 'Development of market linkage' (Variable 13) Cross Tabulation								
	Response Related to 'Development of market linkage' (Variable 13) in Likert Scale					Total	Weighted Score	Average Score
Districts	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)			
Nadia	5	8	32	83	58	186	739	4.0
Purulia	3	2	15	56	110	186	826	4.4

Source: Survey Data

Observation: The result suggests that respondents from both the groups believe that development of market linkage through technology is an important factor which helps to grow quality of employment. A district level comparison suggests that respondents from Purulia district are more in favour of the statement than the respondents from Nadia districts. This means respondents of Purulia district have more faith on this particular factor than the respondents from Nadia district.

Table 4.28. District and 'Increased participation of private organisations through PPP model' (Variable 14) Cross Tabulation

District and 'Increased participation of private organisations through PPP model' (Variable 14) Cross Tabulation								
	Response Related to 'Increased participation of private organisations through PPP model' (Variable 14) in Likert Scale					Total	Weighted Score	Average Score
Districts	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)			
Nadia	1	13	27	111	34	186	722	3.9
Purulia	1	15	28	89	53	186	736	4.0

Source: Survey Data

Observation: The result suggests that respondents from both the groups believe that increased participation of private sectors through PPP model is an important factor which helps to grow quality of employment. A district level comparison suggests that respondents from Purulia district are more in favour of the statement than the respondents from Nadia districts. This means respondents of Purulia district have more faith on this particular factor than the respondents from Nadia district.

Table 4.29. District and 'Improved social protection'(Variable 18) Cross Tabulation

District and 'Improved social protection' (Variable 18) Cross Tabulation								
	Response Related to 'Improved social protection' (Variable 18) in Likert Scale					Total	Weighted Score	Average Score
Districts	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)			
Nadia	1	9	43	103	30	186	710	3.8
Purulia	1	13	29	66	77	186	763	4.1

Source: Survey Data

Observation: The result suggests that respondents from both the groups believe that improved social protection is an important factor which helps to grow quality of employment. A district level comparison suggests that respondents from Purulia district are more in favour of the statement than the respondents from Nadia districts. This means respondents of Purulia district have more faith on this particular factor than the respondents from Nadia district.

Table 4.30. District and 'Long term skill training'(Variable 19) Cross Tabulation

District and 'Long term skill training' (Variable 19) Cross Tabulation								
	Response Related to 'Long term skill training' (Variable 19) in Likert Scale					Total	Weighted Score	Average Score
Districts	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)			
Nadia	1	8	36	104	37	186	726	3.9
Purulia	1	20	22	67	76	186	755	4.1

Source: Survey Data

Observation: The result suggests that respondents from both the groups believe that long term skill training is an important factor which helps to grow quality of employment. A district level comparison suggests that respondents from Purulia district are more in favour of the statement than the respondents from Nadia districts. This means respondents of Purulia district have more faith on this particular factor than the respondents from Nadia district.

Table 4.31. District and 'Commercialization of agricultural product'(Variable 20) Cross Tabulation

District and 'Commercialization of agricultural product' (Variable 20) Cross Tabulation								
	Response Related to 'Commercialization of agricultural product' (Variable 20) in Likert Scale					Total	Weighted Score	Average Score
Districts	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)			
Nadia	1	6	30	108	41	186	740	4.0
Purulia	1	12	29	81	63	186	751	4.0

Source: Survey Data

Observation: The result suggests that respondents from both the groups believe that commercialization of agricultural product is an important factor which helps to grow quality of employment. A district level comparison suggests that respondents from both the districts have similar opinion. This is because agriculture still playing a major role in terms generating income for the household but the production process needs modification.

Table 4.32. District and 'Development of the rural infrastructure'(Variable 21) Cross Tabulation

District and 'Development of the rural infrastructure' (Variable 21) Cross Tabulation								
	Response Related to 'Development of the rural infrastructure' (Variable 21) in Likert Scale					Total	Weighted Score	Average Score
Districts	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)			
Nadia	5	14	23	108	36	186	714	3.8
Purulia	7	26	18	64	71	186	724	3.9

Source: Survey Data

Observation: The result suggests that respondents from both the groups believe that development of the rural infrastructure is an important factor which helps to grow quality of employment. A district level comparison suggests that respondents from both the districts have similar opinion. This is because agriculture still playing a major role in terms generating income for the household but the production process needs modification.

Table 4.33. Composite average score of Nadia and Purulia Districts on the basis of the 12 variables

Composite Score	Average Score of all variables combined	Grand Score
Score for Nadia	47.2	3.9
Score for Purulia	50.0	4.2

Source: Survey Data

Observation: The summary of the composite average score represented in the table 4.33 shows that it is higher for the Purulia district in comparison to Nadia district. As the respondents shared their perception with regard to the 12 variables it in can be ascertained that the responses of the Purulia district are more favourable. One of the reason for this kind of favourable response is related to the lack of facilities and problems that the rural non – farm workers are facing in the backward districts like Purulia. Thus, the overall composite average score is also in line with the hypotheses testes and gives an understanding that the factors identified through this study are important and should be incorporated to improve the overall quality of the non – farm activities.

CHAPTER - V
RESULTS, DISCUSSIONS & CONCLUSIONS

CHAPTER - V

RESULTS, DISCUSSIONS & CONCLUSIONS

5. Introduction

The research was started keeping in mind the importance of the non-farm sector in the lives of rural people having minimum and uncertain sources of earnings from agricultural activities. Non–farm employment is those employees which are not part of agricultural production. Hence, in a country where most of the people from rural parts are engaged in agricultural production, non–farm employment opportunities surely help them to increase their standard of living. But, most of the time, these employment opportunities are informal in nature, and to avail of these jobs, most people are migrating from one place to another. As a result of which, there exists one income disparity as well as manpower shortages. Hence, there is a need to understand the quality of employment in non – farm sector, which is the major point of discussion in this research.

To identify the mentioned objectives, the researcher identified two study districts where the actual study was conducted. The study districts were selected on the basis of the convenience sampling technique. After the selection of study districts, the researcher exclusively identified the non–farm workers. As per the census definition, the workforce is divided into main workers and marginal workers. Under each category, the researcher excluded cultivators and agriculture workers to identify the workers engaged in non–farm activities.

5.1. Summary of the Results

This research work started with the identification of research variables through a review of the literature and exploratory research. The process helps to identify 12 variables and those variables are categorized under three heads, viz.

- Access to productive resources
- Supportive role of government and private organizations
- Long-term support

First variable is described with the help of five factors, second variable is described with the help of three factors and third variable is described with the help of four factors. These factors helped to explain the difference of opinion among the respondents of the two study districts. Initially, total 24 variables are identified for the study. These variables are known as initial variables. These initial variables are further processed with the help of a reliability and validity study. The PCA method is applied to understand the right kind of variables that are used in the present study. All, these processes ultimately helped to identify 12 final variables that are used to understand the perceptual difference among the respondents of two study districts as well as to understand the perception of the respondents towards the quality of employment through weighted average score. The quality of employment is derived with the help of the Likert scale and the same is also tested during the pilot study.

5.1.1. Access to productive resources and perception of the respondents towards improving the quality of non–farm employment

- The hypothesis 1a developed in chapter 4 shows that there is a significant difference of opinion exists among respondents of the two districts related to the factor that education helps to improve the quality of employment. The result also suggests that respondents of Purulia district are more in favour of the statement than the respondents of Nadia district. This suggests that education helps to develop the required skills that are needed to be part of non–farm employment sectors that exists in the formal sector. A non – farm employment opportunities in the informal sector do not require adequate

knowledge or skills. But, as the nature of job requirements is changing, the importance of education can be seen among the respondents.

- The hypothesis 2a developed in chapter 4 shows that there is a significant difference of opinion exists among respondents of the two study districts related to the factor that skill acquisition helps to improve the quality of employment. The result also suggests that the respondents of Purulia district are more in favour of the statement than the respondents of Nadia district. This suggests that without the required skill, getting a quality job is not possible. But, getting quality skills is not all the time possible if the same is not accessible. Hence, the study suggests that skill enhancement initiatives from the government are adequately matching the requirement of the industry where skilled manpower is in high demand.
- The hypothesis 3a developed in chapter 4 shows that there is a significant difference of opinion exists among respondents of the two study districts related to the factor that access to the market helps to improve the quality of employment. The result also suggests that the respondents of Purulia district are more in favour of the statement than the respondents of Nadia district. It indicates that access to local as well as the global market is an important criterion to improve the quality of employment. Only creating a skilled workforce is not sufficient as it will help to produce quality products. But, unless and until the same is not available in the market it won't create enough job opportunities. So, there is a constant need to explore new markets so as to create sufficient demand for the products.
- The hypothesis 4a developed in chapter 4 shows that there is a significant difference of opinion exists among respondents of the two study districts related to the factor that access to credit helps to improve the quality of employment. The result also suggests that the respondents of Purulia district are more in favour of the statement than the

respondents of Nadia district. After market linkage, access to credit is another dimension which needs special attention. It is important to have an adequate flow of capital so as to continue with production and meet the market demand.

- The hypothesis 5a developed in chapter 4 shows that there is a significant difference of opinion exists among respondents of the two study districts related to the factor that lack of training affects the quality of employment. The generation of a skilled workforce can only be possible if an adequate training mechanism is available. Only creating different policies and programmes to enhance skills is not sufficient. The actual implementation of the same is also necessary, which is missing most of the time.

5.1.2. Supportive role of government and private organizations and perception of the respondents towards improving the quality of non–farm employment

- The hypothesis 6a developed in chapter 4 shows that there is a significant difference of opinion exists among respondents of the two study districts related to the factor that government support to access to finance helps to improve the quality of employment. Access to finance is a crucial factor and most of the time it is observed that people are not getting enough credit for productive purposes as they are not bankable. The need for documentation is another detrimental factor that often forces people to depend on local money lenders and hence reducing the quality of employment opportunities that may have been generated. Thus, the role of government becomes an important dimension so that people can get access to finance as and when there is a need.
- The hypothesis 7a developed in chapter 4 shows that there is a significant difference of opinion exists among respondents of the two study districts related to the factor that the development of market linkage through technology helps to improve the quality of employment. It can be seen that respondents from the Purulia district are more in favour

of this statement. This indicates that the Purulia district, which is not rich in agricultural production is bound to depend more on non–farm productive employment opportunities. Thus, the market linkage programme using technology is surely attracting more investment in the district and subsequently, it will help to improve the employment opportunities in the study districts. The same may be applied by other districts to improve market access.

- The hypothesis 8a developed in chapter 4 shows that there is a significant difference of opinion exists among respondents of the two study districts related to the factor that the improved participation of private sectors through the PPP model helps to improve the quality of employment. Only government intervention is not sufficient to bring desired changes. It is important to involve private sectors that can spend significantly in creating infrastructure to provide market support and training. Unless this merger is happening, the said quality improvement is not possible.

5.1.3. Long-term support and perception of the respondents towards improving the quality of non–farm employment

- The hypothesis 9a developed in chapter 4 shows that there is a significant difference of opinion exists among respondents of the two study districts related to the factor that social protection helps to improve the quality of employment. Social protection always gives some kind of security to the people at large. Various government welfare projects should be implemented adequately so that people at large must get some productive resources for the betterment of their standard of living.
- The hypothesis 10a developed in chapter 4 shows that there is a significant difference of opinion exists among respondents of the two study districts related to the factor that long-term skill training helps to improve the quality of employment. It is important to

understand the fact that skill training should be a continuous process. Most of the time it is observed that one-time skill enhancement training is provided to needy people and no further improvements are encouraged. This is going to affect productivity in the long term due to changes in technology adoption.

- The hypothesis 11a developed in chapter 4 shows that there is a significant difference of opinion exists among respondents of the two study districts related to the factor that commercialization of agricultural products helps to improve the quality of employment. Most of cases, it can be seen that agriculture is the primary source of income though it depends more on monsoons. As a result of this, the income generated from the agricultural sector is not regular. Hence, the commercialization of agricultural products is necessary. Along with this, it is important to incorporate the production of cash crops along with food crops so that this cash crop can provide an extra source of income provided adequate market linkage is there.
- The hypothesis 12a developed in chapter 4 shows that there is a significant difference of opinion exists among respondents of the two study districts related to the factor that the development of rural infrastructure helps to improve the quality of employment. It is no doubt an important factor that determines the quality of employment in the non–farm sector. Infrastructure is most important that is going to give an extra boost to the sector.

5.2. Relevance of the study with existing literature

The twelve main variables identified and selected for the study are the major source that describes the linkages with the existing body of literature on rural non–farm sectors. Variables like access to market, access to credit, skill acquisition, commercialization of agricultural products, development of rural infrastructure, lack of training, government support to improve

access to finance, Increased participation of private organizations through PPP model, improved social protection, development of market linkage through technology, long term skill training, development of market linkage through technology are the important factors that determine the quality of employment. Hajdu, F., Neves, D., &Granlund, S. (2020) in their study discussed the quantitative aspect of employment generation in the rural non-farm sector which signifies that access to market is important for the growth of non–farm sectors. In the same line, Bordoloi, S. (2017), also discussed the importance of development of market linkage through technology. Van Roy, V., Vértesy, D., &Vivarelli, M. (2018) pointed out that women's participation in non–farm activities and subsequently usage of technology-driven market access helps to give them wider access to new markets. Along with market access, Bate, B. G., Kimengsi, J. N., &Amawa, S. G. (2019) mentioned that the capital required to create employment generation is crucial, hence pointed out that access to credit is also equally important for the growth of quality employment in the non – farm sector. Thus, the literature also signifies the research findings that access to credit is going to play a crucial role in the development of the non–farm sectors. In their research work,Sohns, F., &Diez, J. R. (2018); highlighted the skill part and described that Employment generation depends on the development of entrepreneurial activity and that needs special training. Unless this activity increases, it won't able to generate significant employment opportunities in the mentioned sectors.

5.3. Managerial Implications

The study is unique in the sense that employment generation is always the priority of the government and other stakeholders. But, the quality of employment in the non–farm sector is never analysed in a detailed way. Various skill training programmes running by government and private organizations should realize that only providing hands-on training is not sufficient

unless it is continuous in nature. Skill up-gradation and re-skilling should be the priority of different skill-based project implementing agencies. The results also suggest the same.

5.4. Theoretical Implications

- The research work is able to redefine the objective that to increase the quality of employment, the workforce should be well educated and should have sufficient skills. To achieve that government is also taking various initiatives. NEP is one such mechanism that helps to achieve the desired goal in this regard. The study reestablished the fact that access to market and access to credit are the two primary areas of concern where expected growth may be halted. Thus, government support and intervention are highly necessary for these areas where growth is halted. The study also observed that the growth of non – farm sector is more in the advanced blocks and there is a specific reason for it. These sectors are mostly fueled by the growth of the agriculture sector, skill development and education. The combined growth effect down the line helped the growth of the non – farm sector as well. The political will of the government is also an important factor that determines the growth of the non – farm sector in those areas where agricultural productivity is in a better condition.

Summary of the theoretical Implications

Sl. No.	Article Topics	Article Details	Author	Linkage with Research	Finding Factors
1	Changing Livelihoods in rural eastern cape, South Africa (2002–2016): diminishing employment and	Decline in wages and increase in wage inequalities	Hajdu, F., Neves, D., &Granlund, S. (2020)	The quantitative aspect of employment generation in the	Access to market

	expanding social protection	during post reforms period		rural non-farm sector	
	Determinants and policy implications of farmers' climate adaptation choices in rural Cameroon	The author described the role of natural capital in non – farm sector	Bate, B. G., Kimengsi, J. N., &Amawa, S. G. (2019)	Capital requirement to create employment generation is crucial	Access to credit
	Explaining micro-entrepreneurship in rural Vietnam—a multilevel analysis	This paper seeks to resolve the void in the study by using parametric survival models with mixed results in order to explore the effects of variables on the likelihood of survival of micro companies in rural Vietnam	Sohns, F., & Diez, J. R. (2018)	Employment generation depends on the development of entrepreneurial activity	Skill acquisition
	Are all young farmers the same? An exploratory analysis of on-farm innovation	This article, on the other hand, discusses creativity	McKillop, J., Heanue, K., & Kinsella, J. (2018)	Lack of creativity in productive activities creating problem in	Commercialization of agricultural products

	on dairy and dry stock farms in the Republic of Ireland	disparities among young farmers		improving non – farm employment	
	Non-Farm Employment and Implication on Agriculture Sector in Rural India	Non-Farm Employment and Implication on Agriculture Sector in Rural India	Chand, P., Rao, S., Subash, S. P., & Malangmeih, L. (2018)	Globalization forces to adopt new technologies which created new demand for skilled workforce	Commercialization of agricultural products
	Development of rural industries and transformation of China's rural economy	Growth of non – farm sector helps to absorb workforce	Ahmed, M. U. (1993)	Systematic growth is required to absorb the excess workforce	Development of rural infrastructure
	Non-farm futures and the dispossessed: mapping manual labour in an industrial area in India	Acquisition of agricultural lands for the development of industrial land and subsequent development of non-farm sector	Chatterjee, M. (2020)	Lack of government intervention and training	Lack of training, Government support to improve access to finance
	Non-farm Diversification and Agrarian Change: The Story of a Semi-arid Village in Rajasthan. Social Change	It argues that improvements in the Baspur village economy were driven by the	Alha, A. (2020)	Increased communication with outside market helps to learn new skills	Increased participation of private organizations

		increased integration of the village with the outside world			through PPP model
	Is growth improving employment quality in India? Evidence of widening subnational inequality	The author discussed the quality of employment to reduce the income inequality	Moktan, A. (2019)	Inequality often leads to create skill acquisition and access to various capitals that are required in non-farm sector	Improved social protection, Skill acquisition
	Technology and employment: Mass unemployment or job creation? Empirical evidence from European patenting firms.	This study highlights the labour market conduct of rural India in order to evaluate shifts in the employment structure and to define factors influencing rural labour supply improvements.	Van Roy, V., Vértesy, D., &Vivarelli, M. (2018)	This article seeks, in particular with micro-level proof of feminization in agricultural activities by labour supply estimation, to resolve the contradiction between absolute decreases in workforce, in particular rural women at the national level.	Development of market linkage through technology

	The Rural Nonfarm Sector in Flexible Capitalism: The Coir Industry in Kerala, India	The author discussed the growth of rural non–farm sector under a capitalist structure	Bordoloi, S. (2017)	RNFS is an alternative rural field for the generation of jobs and enhanced wage conditions that contribute to the empowerment of rural labour force in the current literature.	Long term skill training
	Are farmer producer companies ready to behave as business entities? Insights from vegetable-based farmer companies in West Bengal, India	Article deals with the importance of farmers' producer company	Nabajyoti Deka, Kishor Goswami, Abhay Shankar Thakur &Pratap Bhanu Singh Bhadoria (2020)	Inadequate training, inept management, and poor organizational skills of the members	Lack of training
	The extent of participation in skill development training and its impact on employment	Participation in skill enhancement is important for the beneficiaries	Melo, Y., & Das, A. K. (2020)	Participation in skill enhancement is important for the beneficiaries	Skill acquisition

	The rural non – farm sector in flexible capitalism: The coir industry in Kerala, India	Rural non – farm sector's flexibility was discussed	Bordoloi, S. (2017)	Rural non – farm sector's flexibility was discussed	Development of market linkage through technology
	Rural employment generation in India: A critical view from Rajasthan	The article pointed out the trends of rural employment generation	Rao, C. H. H. (2018)	The article pointed out the trends of rural employment generation	Level of education of the workforce

5.5. Practical Implications

- The study helps the stakeholders to identify the loopholes in the existing model of the skill training programme. It can be seen that continuous skill up-gradation training is missing in the present form of the training programme, hence if the suggestions are accepted then it will surely help to take necessary actions in this regard.
- The study also helps to identify the potential of non–farm sectors along with farm sectors. Dependence on the farm sector should not be the only employment opportunity. Other income-generating opportunities should be created for the new generations.

5.6. Social Implications

The study helps to identify the potential of employment generation in the non–farm sector. Lack of income-generating opportunities often forced the workforce to move to other parts of the country. Often this kind of movement forced them to take jobs in informal sectors with minimal non–farm security. COVID 19 and the subsequent nationwide lockdown witnessed by

the labour force working in these unorganized sectors was not good. Hence, if adequate job opportunities are created in their place of origin, then mass migration may be reduced. But, for that quality of employment should be improved. The present study is able to address these issues and addressed the problems faced by the sector.

Table 5.1. Summary table related to comparison between literature review and findings

Sl. No.	Title	Author	Summary of the Article	Link to findings
1	Changing Livelihoods in rural eastern cape, South Africa (2002–2016): diminishing employment and expanding social protection	Hajdu, F., Neves, D., & Granlund, S. (2020)	Decline in wages and increase in wage inequalities during post reforms period	Access to market
2	Determinants and policy implications of farmers' climate adaptation choices in rural Cameroon	Bate, B. G., Kimengsi, J. N., & Amawa, S. G. (2019)	The author described the role of natural capital in non – farm sector	Access to credit
3	Explaining micro-entrepreneurship in rural Vietnam—a multilevel analysis	Sohns, F., & Diez, J. R. (2018)	This paper seeks to resolve the void in the study by using	Skill acquisition

			parametric survival models with mixed results in order to explore the effects of variables on the likelihood of survival of micro companies in rural Vietnam	
4	Are all young farmers the same? An exploratory analysis of on-farm innovation on dairy and dry stock farms in the Republic of Ireland	McKillop, J., Heanue, K., & Kinsella, J. (2018)	This article, on the other hand, discusses creativity disparities among young farmers	Commercialization of agricultural products
5	Non-Farm Employment and Implication on Agriculture Sector in Rural India	Chand, P., Rao, S., Subash, S. P., & Malangmeih, L. (2018)	Non-Farm Employment and Implication on Agriculture	Commercialization of agricultural products

			Sector in Rural India	
6	Development of rural industries and transformation of China's rural economy	Ahmed, M. U. (1993)	Growth of non – farm sector helps to absorb workforce	Development of rural infrastructure
7	Non-farm futures and the dispossessed: mapping manual labour in an industrial area in India	Chatterjee, M. (2020)	Acquisition of agricultural lands for the development of industrial land and subsequent development of non-farm sector	Lack of training, Government support to improve access to finance
8	Non-farm Diversification and Agrarian Change: The Story of a Semi-arid Village in Rajasthan. Social Change	Alha, A. (2020)	It argues that improvements in the Baspur village economy were driven by the increased integration of the village with the outside world	Increased participation of private organizations through PPP model

9	Is growth improving employment quality in India? Evidence of widening subnational inequality	Moktan, A. (2019)	The author discussed the quality of employment to reduce the income inequality	Improved social protection, Skill acquisition
10	Technology and employment: Mass unemployment or job creation? Empirical evidence from European patenting firms.	Van Roy, V., Vértesy, D., &Vivarelli, M. (2018)	This study highlights the labour market conduct of rural India in order to evaluate shifts in the employment structure and to define factors influencing rural labour supply improvements.	Development of market linkage through technology
11	The Rural Nonfarm Sector in Flexible Capitalism: The Coir Industry in Kerala, India	Bordoloi, S. (2017)	The author discussed the growth of rural non–farm sector under a capitalist structure	Long term skill training

12	Are farmer producer companies ready to behave as business entities? Insights from vegetable-based farmer companies in West Bengal, India	Nabajyoti Deka, Kishor Goswami, Abhay Shankar Thakur &Pratap Bhanu Singh Bhadoria (2020)	Article deals with the importance of farmers' producer company	Lack of training
13	The extent of participation in skill development training and its impact on employment	Melo, Y., & Das, A. K. (2020)	Participation in skill enhancement is important for the beneficiaries	Skill acquisition
14	The rural non – farm sector in flexible capitalism: The coir industry in Kerala, India	Bordoloi, S. (2017)	Rural non – farm sector's flexibility was discussed	Development of market linkage through technology
15	Rural employment generation in India: A critical view from Rajasthan	Rao, C. H. H. (2018)	The article pointed out the trends of rural employment generation	Level of education of the workforce

5.7. Major Recommendations

- Education policy, particularly for women and the underprivileged, must be prioritized. Education is an area where lots of changes need to be taken into consideration. Along with traditional education, there is a need to incorporate skill-based education at the primary level. Dropout is a major among the young people as most of them engaging themselves in income generating opportunities at the early age. This will create a future unskilled manpower. A change in the education policy in line with New Education Policy (NEP) where multiple entry and exit option is recommended is indeed a requirement for this group.
- Expansion of regular employment and self-employment is critical for improving job quality and, as a result, household wages. As a result, the performance of Self-Help Groups (SHGs) in both study regions has to be enhanced in order to expand self-employment activities. Micro level research demonstrates that the quality of work (as determined by the kind of employment) accounts for a considerable portion of the poverty gap in terms of use (particularly for the self-employed activities). As a result, expanding self-employment activities, particularly in the Backward Region, may raise household income and thereby lower the prevalence of poverty.
- Agricultural labourers make up a sizable proportion of the workforce, particularly in the advanced regions. As a result, their earnings are seasonal and erratic. Expansion of National Rural Employment Guarantee (NREG) labour is very vital, and efforts must be made to enhance the number of employment days and eliminate salary payment delays.
- The reasons for limited access and utilisation of resources, particularly in underserved areas, must be investigated.

- There is a need to provide market access with the help of new age technologies. Some of the participants engaged in household manufacturing sector, but they are unable to get the market access because of low financial resources. Social media may be an effective tool to get the desired market but that certainly needs some amount of training. Thus, over the period of time these new marketing avenues may add value to the existing players.
- Skill based training is there both from the government side as well as from the private players but that is more or less compliance type. There is a need to link it with the actual benefits that the recipients are supposed to get. That part is missing. Too much of handholding is not required. But the people getting training need a platform which helps them to grow. In the present structure this part is missing.
- Improvements in lifestyle may not be directly related to the introduction of digital transactions, but they may be related to changes in certain consumer habits. The new facilities may be capable of providing enough exposure to diverse issues. Access to the internet not only provides them with new generation financial items, but it also opens up a new world to them. Consumer understanding may improve as a result of internet access. Demand for innovative products and services will continue to rise. Previously, they did not have a thorough knowledge of these issues. New age technology will undoubtedly help to improve the problem.

5.8. Suggestions for Future Research

The study is based on both primary data as well as secondary data which helps to identify the research gaps identified during initial phases of the study. The present study helps to identify the areas where problem areas can be identified in the non – farm sector with special reference to two districts of West Bengal. This study is restricted to specific geographical area, i.e., Nadia

and Purulia districts of West Bengal so its recommendations are best suitable for these two areas only. Any generalization should be matched with the specific socio-economic profile of that particular region. The study also addressed the quality of employment in the non–farm sector only and incorporated those areas that are not coming under agricultural and allied sectors. So, any quality of employment in the farm sector is specifically avoided in this study.

Some future scope for works is discussed below

- Non-farm sector's growth on economy
- Comparative study between farm and non – farm sector
- Restricted migratory movement due to improvement in non – farm sectors

5.9. Limitations of the Research

The study has the following limitations:

- The study is mainly based on primary data and the same is collected using a multi-stage sampling technique. Although, adequate measures are taken to get the right data some amount sampling errors may be there.
- The result of the study is mainly restricted to the specific geographical area only. Any generalization is not possible without proper validation of the data.
- Ethnic minority groups could not be interviewed due to lack of accessibility.

5.10. Concluding Remarks

Our research reveals that excessive reliance on agriculture as a source of livelihood has steadily declined along with the workers' job base, resulting in a minor degree of diversification. Their nonfarm employment base has grown from 21.6 percent in 1993-94 to 32.1 percent in 2009-10 in rural regions and from 87.6 percent in 1993-94 to 92.5 percent in urban areas.Male employees, on the other hand, experience greater variety than their female colleagues. For rural

girls, a very low human capital foundation and societal constraints obstruct their transition to non-farm work. Non-farm economic activities encompass all economic activity other than agriculture, livestock, fishing, and hunting (Lanjouw and Lanjouw, 2001). It comprises all non-crop agricultural operations, as well as manufacturing, mining and quarrying, transportation, trade, and services in rural regions. The non-farm industry comprises agricultural product commerce and processing. As a result, the non-farm sector encompasses secondary and tertiary activities. Mining and quarrying, manufacturing, utilities (electricity, gas, and water supply), and construction sectors comprise the secondary sector, while wholesale and retail commerce, transportation-storage, and communication and services comprise the tertiary sector. As a result, the non-farm sector is not uniform. It is made up of a diverse variety of activities. A clear definition of the term "rural" is required. Workers are classified as rural or urban depending on their location of residence, therefore individuals who travel to a job in a neighbouring metropolitan centre are classified as rural. The growth of India's rural non-farm sector (or employment) is not only critical, but also urgent, given the country's growing unemployment and large rural population and workforce. Several explanations have been advanced in the last three decades to explain the increase of rural nonfarm employment.

Advocates of agriculture-led growth theories see the rural non-farm sector playing a major role in encouraging agricultural expansion through inter sectoral connections. They mostly allude to Mellor's (1976) growth linkage theory, which suggested that as a consequence of the green revolution's development, demand-led expansion of both the farm and non-farm sectors would occur, promoting a 'Virtuous Circle' of increase in food production and employment. The latter would develop as a result of several connections with the agriculture industry. In this aspect, two links are important: production linkages and consumption linkages. The agriculture sector would also provide production links. Backward production connection would emerge from

agricultural development, which increases demand for inputs, which are either produced or delivered by nearby non-farm firms. Forward production links would emerge as a result of the rising need for agro-processing activities. The lower cost of agricultural output as a result of technology advancements may boost the income of growers and agricultural labourers. As a result, a rise in agricultural income stimulates their desire for a wide range of consumer items, some of which may be supplied by the local non-farm sector. This is referred to as the 'Consumption connections.'

The Residual Sector Hypothesis, on the other hand, was developed by various academics, including Vaidyanathan (1986), Jayaraj (1992), Chandrasekhar (1993), and Sen (1994). They anticipated that distress factors such as poverty, unemployment or underemployment due to agriculture's inability to absorb surplus labour, and even frequent natural calamities such as drought would push rural households to seek various non-farm activities to supplement their farm income and employment. Vaidyanathan (1986) discovered a positive relationship between non-farm employment and the unemployment rate, and proposed that non-farm employment absorbed excess labour when agriculture employment potential was restricted, implying a distress-induced rise of the non-farm sector. In this case, the non-farm sector serves as a residual source of employment. C.P. Chandrasekhar advanced the third suggestion. According to this concept, both pull (development factors) and push (distress factors) forces are at work to increase nonfarm employment. Several additional variables, such as agricultural commercialization, urbanisation, education, formal vocational training, monthly per capita income, land ownership, rural infrastructure, and government spending, are significant for the rise of non-farm employment. There are various empirical studies in the literature that assess the significance of the aforementioned factors. So, a holistic approach needs to be taken so as to improve the working conditions of the rural non – farm sector in all the geographical regions.

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APPENDICES

APPENDIX A

Pilot Survey Questionnaire

Dear Respondent,

I am conducting this study as part of my Ph. D work related to "To identify the factors influencing employment opportunities in non –farm activity." The information collected through this questionnaire will be used only for academic purposes. I am also assuring you about confidentiality of the information that will be provided by you.

The questionnaire is divided into three segments. Please read the questions in each segment carefully before answering. Each question will have specific instructions so that it helps you to fill up the questionnaire.

Section A

Demographic and General Information

Serial No. ☐

1. District of the Respondent

a) Nadia ☐

b) Purulia ☐

2. Gender of the Respondent

a) Male ☐

b) Female ☐

c) Others ☐

3. Age of the Respondent

a) < 18 Years 

b) 18 Years – 35 Years 

c) 36 Years – 55 Years 

d) > 55 Years 

4. Marital status of the respondent

a) Single 

b) Married 

c) Divorced 

d) Widowed 

5. Education level of the respondent

a) Illiterate 

b) Upto class 8 

c) Upto class 10 

d) Upto class 12 

e) Graduate 

f) Post Graduate 

6. Monthly household income of the respondent

a) < Rs.10,000 

b) Rs.10,000 – Rs.20,000 

c) > Rs.20,000 

7. District wise list of Non – Farm sectors where respondents working

a) Minning and Quarrying 

b) Manufacturing 

c) Household Manufacturing 

d) Non – Household Manufacturing 

e) Construction 

f) Trade and Commerce 

g) Transport, storage and communication 

h) Other Services 

8. Reasons for opting Non – Farm Employment

a) Heredity 

b) Land insufficiency 

c) Poverty 

d) High earnings 

e) Irrigation problems 

f) Better connectivity 

g) Government intervention 

h) Urban linkage 

Section B

Factors affecting Quality of Employment

Below is the list of factors that affects quality of employment in a particular geographical area. Please read the factors carefully and express your degree of association with these factors in terms of quality of non – farm employment in this area in a scale of 1 to 5 where 1 means strongly disagree (SDA) and 5 means strongly agree (SA).

Factors	SDA (1)	DA (2)	N (3)	A (4)	SA (5)
Variable 1: Level of education of the workforce					
Variable 2: Quality of human capital					
Variable 3: Skill acquisition					
Variable 4: Access to market					
Variable 5: Access to credit					
Variable 6: Insufficient training					
Variable 7: Lack of training					
Variable 8: Lack of access to capital					
Variable 9: Social network					
Variable 10: Promotion of small-scale industries					
Variable 11: Government support to improve technical skills					
Variable 12: Government support to improve access to finance					
Variable 13: Development of market linkage through technology					
Variable 14: Increased participation of private organizations through PPP model					
Variable 15: Improved mode of communication and transport					
Variable 16: Rural urban linkage					

Variable 17: More participation of women workforce					
Variable 18: Improved social protection					
Variable 19: Long term skill training					
Variable 20: Commercialization of agricultural products					
Variable 21: Development of rural infrastructure					
Variable 22: Poor backward and forward linkage					
Variable 23: Easy availability of raw materials					
Variable 24: Introduction of contract farming					

APPENDIX B

Final Questionnaire

Dear Respondent,

I am conducting this study as part of my Ph. D work related to "To identify the factors influencing employment opportunities in non –farm activity. "The information collected through this questionnaire will be used only for academic purposes. I am also assuring you about confidentiality of the information that will be provided by you.

The questionnaire is divided into three segments. Please read the questions in each segment carefully before answering. Each question will have specific instructions so that it helps you to fill up the questionnaire.

Section A

Demographic and General Information

Serial No. ☐

1. District of the Respondent

a) Nadia ☐

b) Purulia ☐

2. Gender of the Respondent

a) Male ☐

b) Female ☐

c) Others ☐

3. Age of the Respondent

a) < 18 Years ☐

b) 18 Years – 35 Years ☐

c) 36 Years – 55 Years ☐

d) > 55 Years ☐

4. Marital status of the respondent

a) Single 

b) Married 

c) Divorced 

d) Widowed 

5. Education level of the respondent

a) Illiterate 

b) Upto class 8 

c) Upto class 10 

d) Upto class 12 

e) Graduate 

f) Post Graduate 

6. Monthly household income of the respondent

a) < Rs.10,000 

b) Rs.10,000 – Rs.20,000 

c) > Rs.20,000 

7. District wise list of Non – Farm sectors where respondents working

a) Minning and Quarrying 

b) Manufacturing 

c) Household Manufacturing 

d) Non – Household Manufacturing 

e) Construction 

f) Trade and Commerce 

g) Transport, storage and communication 

h) Other Services 

8. Reasons for opting Non – Farm Employment

a) Heredity 

b) Land insufficiency 

c) Poverty 

d) High earnings 

e) Irrigation problems 

f) Better connectivity 

g) Government intervention 

h) Urban linkage 

Section B

Factors affecting Quality of Employment

Below is the list of factors that affects quality of employment in a particular geographical area. Please read the factors carefully and express your degree of association with these factors in terms of quality of non – farm employment in this area in a scale of 1 to 5 where 1 means strongly disagree (SDA) and 5 means strongly agree (SA).

Factors	SDA (1)	DA (2)	N (3)	A (4)	SA (5)
Variable 1: Level of education of the workforce					
Variable 3: Skill acquisition					
Variable 4: Access to market					
Variable 5: Access to credit					
Variable 7: Lack of training					
Variable 12: Government support to improve access to finance					
Variable 13: Development of market linkage through technology					

Variable 14: Increased participation of private organizations through PPP model					
Variable 18: Improved social protection					
Variable 19: Long term skill training					
Variable 20: Commercialization of agricultural products					
Variable 21: Development of rural infrastructure					

PUBLICATIONS AND PRESENTATIONS BY THE SCHOLAR IN THE RESEARCH AREA

1. Published a paper titled “Rural Non-farm Sector and A Comparative Analysis of The Quality of Employment – A Pilot Study on Selected Districts of West Bengal”, *International Journal of Advance & Innovative Research,* Issue April-June, 2019, pg 131-138.
2. Published a paper titled “A Review of Literature on Rural Non-farm Employment And Quality of Employment With Special Reference to West Bengal”, *Universal Review*, Volume VIII, Issue IV, April 2019, pg 1344-1359.