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EDITORIAL NOTES

We are feeling great satisfaction that the Journal of Economic & Commerce (*JEC*) has successfully completed the fourteenth years of publication and entering in the 15th year. Early we successfully indexed our journal in QLI Database of INSTITUTE FOR STUDIES IN INDUSTRIAL DEVELOPMENT as well as in the UGC list (2018). We are also proud of our Editorial Board for the *Journal of Economics & Commerce (JEC)*, **Which** includes academicians in the fields of Economics and Commerce, who have marks of records of accomplishment in their respective disciplines and also share a burden of referee as per required from time to time. Ever since its inaugural publication in 2010, *JEC* has emerged as one of the most respected publications, encompassing both Economics and Commerce. We intend to build on this tradition with our present issue.

Over the years, *JEC* has endowed with a platform for the progression of knowledge and the quest of academic excellence. Many prominent scholars from different part of India have published inspiring high quality articles analogous to those in leading journals in the field. Even as maintaining its focus on contemporary developments in the broad areas of Economics and Commerce, the journal is now also pledged to the spreading out of research frontiers further.

Within this orientation the present issue of the journal provides a set of eleven articles which includes some special articles case studies on burning issues of economics, commerce and institutional area. In addition to this we have also kept our commitment towards promotion of new contributors and young researchers in the present issue.

The Editors welcome submissions of the research papers on vital issues concerning our economy and commerce, **with a token of note that these will strictly be referred before acceptance.**

DAV PG College

Varansi

22th, January, 2024

Shri Ram Mandir Lokarpan

and Pran pratistha Diwas

Anup Kumar Mishra

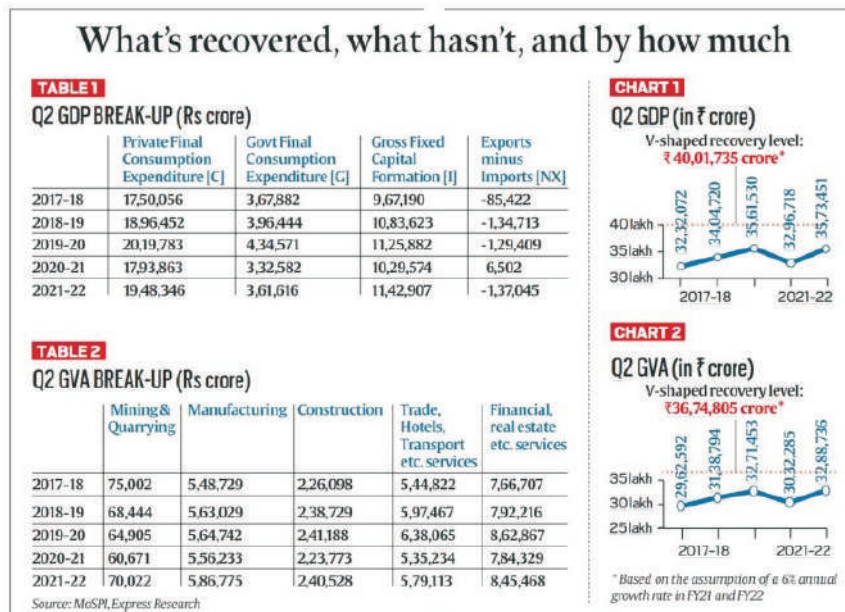
Managing Editor

AN ANALYSIS OF THE ECONOMIC WELL BEING OF INDIVIDUALS AND HOUSEHOLDS JUST ABOVE THE POVERTY LINE

Ritunjaya Bhandari* and V.B. Chaurasia**

INTRODUCTION

The Indian Economy has been plummeting since 2017. The GDP had been falling since 2017 and the onset of the COVID-19 was a major blow to the GDP. It is very important to understand the drivers of the GDP in India, in order to understand the economic problem that is undertaken for the study. The consumption contributes to 55 percent of the GDP in India. Recent figures for Q2 2021, came out (shown in the table), highlighting how consumption which is the main engine of growth is not back to the pre-pandemic levels (2019). In short, what this means is that people spent less this year than they did in the same quarter two years back.




However, from the table above what we get is a bird's view of consumption in absolute numbers. It is important to highlight that the situation is grimmer than this cause of existing income inequality. The table below highlights the income structure of the consumer, how the bottom 60 percent are spending more than their incomes. How this income group managing survive? What is the income expenditure? How much are they spending on food and non-food items? What are the trade-offs they need to make? Do the government policies help them or the future is grimmer?

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Income Structure of Consumer India



Population quintile based on per capita income; HH in mn	HH Size	HH Inc lakhs/ year	% Share of each income quintile to total		
			Income	Expenditure	Surplus income
Richest 20% 72 mn	3.72	6.3 l	45	36	70
Next 20% 61 mn	4.33	3.6 l	22	23	20
Next 20% 42 mn	4.71	2.7 l	15	18	8
Next 20% 49 mn	5.44	2.2 l	11	14	3
Bottom 20% 42 mn	6.28	1.6 l	7	10	-1
All India 281 mn	4.70	3.9 l	100	100	
Richest 10% 39 mn	3.43	7.5 l	29%	22	50
Poorest 10% 20 mn	6.56	1.4 l	3%	4	-1

THE PROBLEM BEING STUDIED

The minimum wage varies across India geographically and also according to the type of industry. The Ministry of Labour and Employment has set the minimum wage for different occupations across different regions. There are three regions and Dehradun falls in region-B. There is different occupation in the list – construction, agriculture, sweeping and cleaning, coal and mining to name few. The minimum wage for Area -B, under which Dehradun falls is rupees 466 on an average for unskilled workers. However, there are individuals who are self-employed and included in the study undertaken. Thus, for the purpose of this study Minimum wage has been taken as a bench mark, that is 466 per month which amounts to rupees 13,980 per month. But this when a worker works for all 30 days. However, as these individuals earn a daily wage and on an average take 3-4 days off in a month, this amount falls to 11,661-12,116 per month.

This study aims to understand the expenditure pattern of this income group- what is spending on food, education, health, fuel and light, intoxicants, etc. How are they sustaining their families and themselves with such low income? What happens in case of an economic shock -like a job loss, health crisis, lockdown, etc. Along with that what are the techniques and methods adopted by these people to survive and who they turn to for help in the time of crisis. Along with that it documents their access to basic services and facilities like sanitation, water, gas, electricity and housing and to understand demand.

Finally, with this research an attempt is made to understand the economic decisions of these households and to understand the demand patterns. Pattern on the basis of these households.

OBJECTIVES

1. To understand the basic characteristics of the households.
2. To analyse the food and non-food expenditure of these households.
3. To understand the demand patterns of these households
4. To suggest policies to improve their living conditions in order to promote inclusive growth.

LITERATURE REVIEW

There is a plethora of understanding the consumption patterns of households across different regions, occupation groups, income group, gender. A huge volume of work exists on households that living on \$1.90 or less with National Poverty line (WB) which was updated in Sep. 2002 to US \$2.15 per person per day (Poverty line set by the world bank), economic status of people in different occupations -street vendors, small traders in both urban and rural India, the inequalities that exist between urban and rural India.

The Economic Lives of the Poor -Abhijit Banerjee and Esther(2006) include, outline the economic lives of the poor (those living on less than \$2 dollar per day per capita at purchasing power parity) or the extremely poor (those living on less than \$1 dollar per day). The work documents the economic being of these individuals and households; the choices they make, the constraints they grapple with and challenges they face, using data from 13 countries. There is work on understanding the economic well-being of individuals in low-income occupations – construction, street vendors, small traders.

Socio-economic status of workers of building construction industryGuddi Tiwary, P. K. Gangopadhyay, K. Nayak, M. K. Chatterjee, D. Chakraborty, and S. Mukherjee(2011), does an in-depth analysis on economic status on construction workers in the north east part of Kolkata . They analyse the characteristic of these group- literacy level, household structure, sanitation facilities, consumption expenditure, choices made by households, constraints faced, awareness regarding schemes.

Consumption Pattern of households in Kumaon Hills of Uttarakhand: An Economic Analysis by Sheela Kharkwal and Ravindra Malhotra (2020) does and analysis on food expenditure and non -food expenditure of Households in the Hilly Regions on Kumaon. It studies the food intake of households as well as the nutritional intake from the recommended levels.

An Analysis of Consumption Expenditure Pattern of Women Workers in Construction Industry (2020): A Case Study by Dr. K.A Rajanna shows the different levels of income earned by female construction workers, their consumption patterns – analysis the data from a large sample of women in construction sector. The paper focuses on expenditure pattern of women construction workers. They expenditure on education, health, entertainment, cell phone, gutka, smoking, drinks, social ceremonies, fuel and lighting and soon. Most of them are very shortage fund (Income) to meet the expenditure.

The think tank PRICE (People's Research on India's Consumer Economy & India's Citizen Environment) is engaged in building and disseminating seminal knowledge and insights about India's Macro Consumer Economy and Citizen's Environment, for use in formulating public policy and in shaping business strategy.

RESEARCH METHODOLOGY

The research seeks to understand the economic well-being of individuals and households earning the minimum wage. The minimum wage as per the Ministry of Labour and Employment in the 2018 notification is at rupees 466.6 for unskilled and rupees 527 for semi-skilled workers for construction workers in Area -B, the category in which Dehradun falls. This amount to rupees 13,980 per month. In order the economic well-being of these individuals and households -there has been in depth study of their monthly consumption expenditure. Along, with that a cause and effect has been established between income and food expenditure, income and non -food expenditure, income elasticity of food,

income elasticity of non-food expenditure. The research is based on primary data and both qualitative and quantitative data has been collected. The sampling method used to collect the data is Stratified Random Sampling .

Here two basic steps are followed –

1. The entire population was sub-divided (or stratified) into groups, based on income, which were mutually exclusive.
2. A simple random sample was then chosen from the income strata that was of concern for this research i.e., minimum wage.

Then the analysis was carried out on the sample from this sub group of the population. In order, to find the economic well-being, the monthly consumption expenditure has been analysed. The survey used to be from National Sample Survey Organization, Socio-Economic Survey, Sixtieth Round. This available in the public domain. This survey is used to find the yearly consumption expenditure of the households.

As the objective for the research undertaken was understand the monthly consumption expenditure, so the entire survey was not used. The variables used to find the monthly expenditure were taken – food expenditure, toxicants, rent, conveyance, medical expenditure, education, toilet articles, fuel and electricity. The food expenditure – was further divided into – cereals, pulses, vegetables, sugar, oil, spices, milk. The expenditure on toxicants was divided – pan, tobacco and alcohol.

Data was also collected on a random basis qualitative variables like what kind of cooking fuel used by the households, kind of dwelling unit -owned or rent and pucca or kutcha, loan and loan amount, education level of the participant, whether ration card is owned by the household or not, sanitation facility – drinking and toilet within or outside the premises were taken into account.

The software used to carry out the analysis was STATA.

HYPOTHESIS

1. Increase in income leads to an increase in savings for households earning thrice the amount above the poverty line.
2. An increase in income will lead to an increase in food and non food expenditure of the households but the increase in non-food expenditure will be greater.
3. Food expenditure is inelastic
4. Non-Food expenditure is elastic

There have been five following regression models used :

$$Y_i = \beta_0 + \beta_1 X_i + \varepsilon_i$$

Y_i : consumption expenditure; β_0 : Constant Co-efficient; β_1 : For a unit change in income the consumption expenditure changes by this amount on an average i.e. MPS (Marginal Propensity to Save); X_i : Income; ε_i : Residual

$$Y_i = \beta_0 + \beta_1 X_i + \varepsilon_i$$

Y_i : Food expenditure; β_0 : Constant Co-efficient; β_1 : For a unit change in income the food expenditure changes by this amount on an average; X_i : Income; ε_i : Residual

$$Y_i = \beta_0 + \beta_1 X_i + \varepsilon_i$$

Y_i : Non-Food expenditure; β_0 : Constant Co-efficient; β_1 : For a unit change in income the non-food expenditure changes by this amount on an average; X_i : Income; ε_i : Residual

$$\log y_i = \beta_0 + \beta_1 \log x_i + \varepsilon_i$$

$\log y_i$: the food expenditure; β_0 : constant coefficient; β_1 : For a 1 percent change in income what is the percentage change in food expenditure; $\log x_i$: income; ε_i : Residual

$$\log y_i = \beta_0 + \beta_1 \log x_i + \varepsilon_i$$

$\log y_i$: non-food expenditure; β_0 : constant coefficient; β_1 : For a 1 percent change in income what is the percentage change in non-food expenditure; $\log x_i$: income; ε_i : Residual

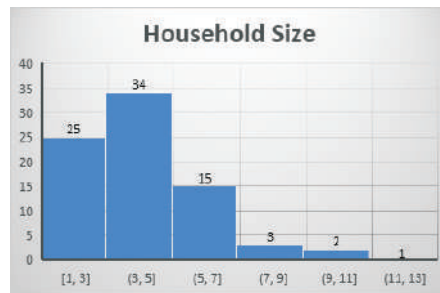
There are certain limitations to the data collected – households also spend a part of their monthly income on phone and internet, data for which was not collected. The research is based only on urban area and households were hesitant to speak on the certain issues; hence making the results and analysis applicable for urban areas.

CHARACTERISTICS OF THE HOUSEHOLD

Household Size : The table 1 shows the household size of the households surveyed. The households have been divided into five groups and the highest frequency is 34, showing that out of eighty households surveyed 34 had an average household size between 3-5. Households facing a higher income crunch was making both the male and females earn. Seeing their children as productive assets who would serve as a social security is something which still exists. The desire for 'male child' was mentioned by many households. When asked why have a large family, many households stated for a male child.

Table 1 : Household Size

No. of Members	No. of Households
one -three	25
three -five	34
five -seven	15
seven -nine	3
nine -eleven	2
eleven-thirteen	1

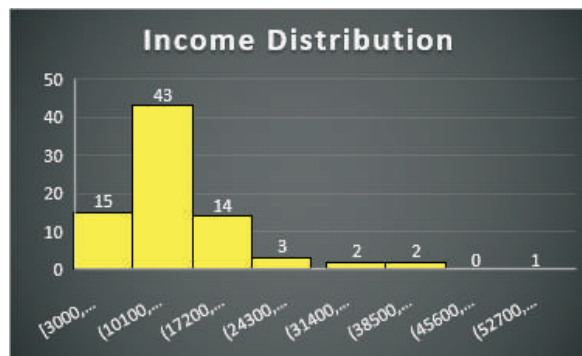


Source: Primary Data

Income Distribution : The monthly income distribution of the households surveyed is shown in table 2.

Table 2: Income Distribution of Households

Income Levels (in Rupees)	No. of Households
3000-10,100	15
10,100-17,200	43
17,200-24,300	14
24,300-31,400	3
31,400-38,500	2
38,500-45,600	2
45,600-52,700	0
52,700-59,800	1



Source: Primary Data

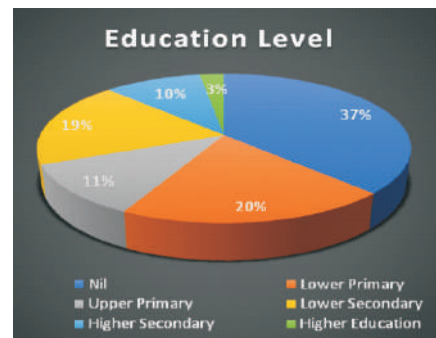
As shown in the above diagram, it is the income distribution of households in the sample. The highest frequency is 43- highlighting that 43 households are earning an income between 10,100-17,200. The average income of the sample is Rupees 16030 and the maximum number of households were earning an income of rupees 12,000 per month. However, a key point that needs to be highlighted is that all the income earners from households surveyed were daily wage earners. As a result, there is a lot of variation in income earned across the year and within a month.

The construction workers surveyed pointed out that there is a constant delay in the payment of wages. As a result, they have to borrow from the contractor to meet their daily requirements. The wage earned by women and men per day at the construction site for the same kind of works tends to vary. The former earning rupees 350 and later earning rupees 400. Both the cases, they are being paid less than the minimum wage which stands at rupees 466.

Education Level : The table 3 shows the education level of the participants from the households who were surveyed.

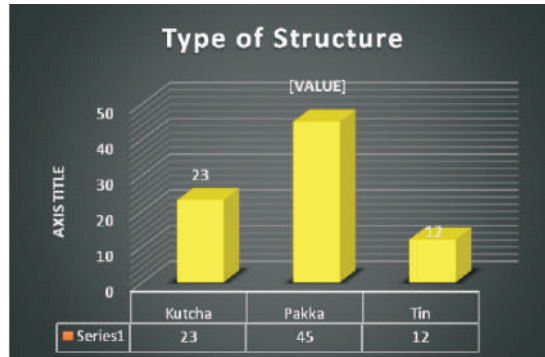
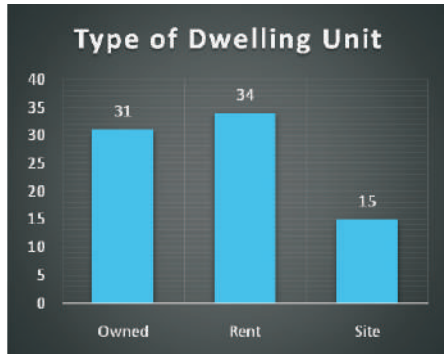
Table 3: Education Level of the Participants

Level	No. of Households
No Formal Education	30
Lower Primary	16
Upper Primary	9
Lower Secondary	15
Higher Secondary	8
Higher Education	2



Source: Primary Data

As the diagram shows 37 percent of people surveyed had never gone to school. However, it is important to highlight that all the people who were surveyed were literate. Even the ones who were educated till a certain weren't doing the job where this level of education would be helpful. Hence, this highlights the work they were doing was low skilled work. Despite the low level of education, all the household surveyed who had children in the school going age group had enrolled them in government or private schools. But, none of them saw education as channel towards upward mobility. The ones who could afford would send their children for tuitions(barely 1-2 household). Another insight was those households who had been living in urban areas for some good years or they were originally from the city still made some efforts to provide their children with additional help via tuitions, mobile for online classes. But the migrant workers, especially the construction workers, cause of the sheer nature of the work couldn't do much and relied on the contract worker or the NGO. Mostly, the children were playing around the site. This low level of education among the household members also had an impact on the nutrition level of small children, as some households complained of the toddlers not eating well, falling ill often, underweight.

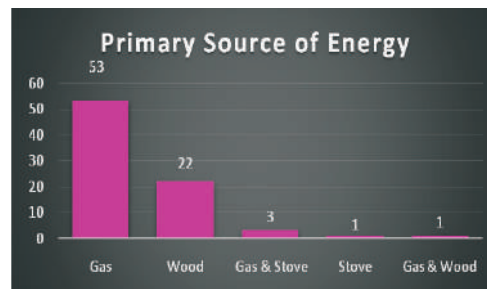


As the chart highlights that 31 households had their own house while others were staying on rent (34) and on the construction site (15). It is evident from the diagram that a majority of the households were living in pukka structures. A kutcha house would be made of mud, tin, sheets depending on the availability of the raw materials and expenditure they could afford. However, many households who were living in their own houses were second or third generation earners. Though they lived in their own house, they had inherited it from their ancestors. The amount they earned, they could barely save to undertake such a heavy investment to construct a house.

Primary Source of Energy : The distribution of the households using the fuels is shown in table 4. There are three types of cooking fuel being used- gas, stove, and a mix of these two.

Table 4: Primary Source of Energy-Cooking

Type	No. Of Households
Gas	53
Wood	22
Stove	3
Gas & Stove	1
Gas & Wood	1



Source: Primary Data

Members also mentioned that when they could not afford the gas, they had to use the stove. Thus, the gas and stove were used parallelly, one serving as a substitute for the other. Wood was being used by migrant workers who stayed on the site. The majority of the household using wood were the construction workers, who simply lacked the means to obtain a gas cylinder.

Rent : The table 5 shows the total rent paid by the households which has been divided into different frequencies and the number of households falling within the each frequency distribution.

Table 5: Rent Expenditure

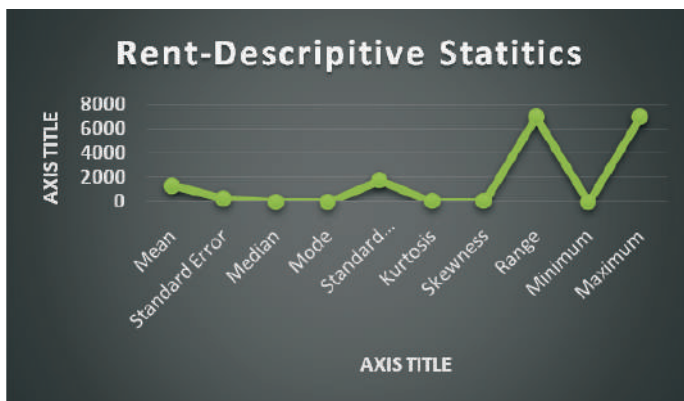
Rent Paid (Rupees)	No. of Households
0-1900	20
1900-3800	15
3800-5700	4
5700-7600	1

Source: Primary Data

As mentioned, earlier though only thirty two household surveyed were staying on rent, out of those also there were households who stayed at the site of the work -like the construction workers who happened to be migrant workers.

However, the others who didn't own a house, spent a large portion of their monthly income on rent. Though, the mean rent was 1313.5, the huge sample variance was due to some households spending way more than they should be on rent. Despite a cheaper option available, they chose to pay a higher rent because the house happened to be closer to the worksite.

The skewness in the data has a positive value of 1.20, showing the size of right handed tail is larger than the left handed tail. Thus, showing the distribution on rent is heavy skewed towards to the right. The graph below is a visual of the statistical analysis of rent. The graph is peaking at the sum due to the aggregation of the rent paid by the household who participated in the survey.



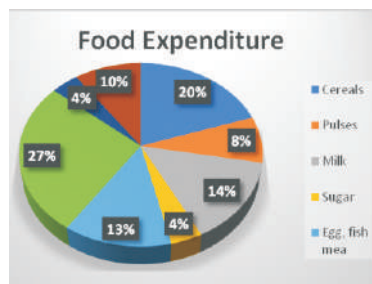
MONTHLY EXPENDITURE ANALYSIS

Food Expenditure :

Before understanding the food expenditure of the households, it is important to understand the role played by ration card in the food expenditure. It is important to mention that more than fifty percent of those surveyed didn't possess a ration card. Within this category also there are two sub categories – some who simply never got one made or lost it. Second, were migrant workers who did have one but back in the village. They weren't even aware of the 'one nation, one ration card' scheme. Households complained that the Fair Price Shops (FPS) assigned to them was too far away from their work place and they didn't have the time to go as they would lose on that day's wage. One household, had the wrong card – yellow one instead of the white. When asked the reason for not getting it exchanged, the household, stated bribery as a reason for not getting the work done.

Table 6: Total Food Expenditure

Food Items	Food Expenditure (Rupees)
Cereals	120409
Pulses	49820
Milk	89246
Sugar	19640
Egg, fish meat	72250
Vegetables	159400
Spices	21600
Oil	60790



Source-Primary Data

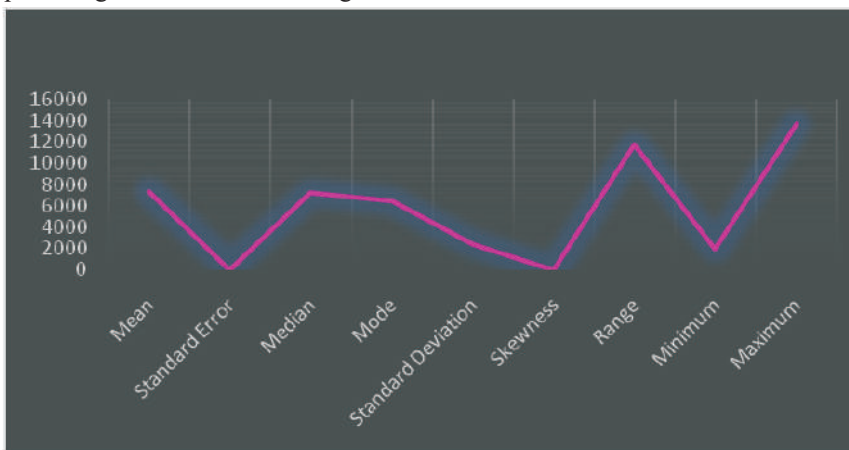
The table shows the total monthly food expenditure of the household respondents. It also shows the food basket and the total expenditure on various items. The pie chart highlights the total food expenditure. Twenty percent of the total food expenditure is made on cereals. However, 27 percent of the total food expenditure is made on vegetables.

The mean spending of the households on food is rupees -7409.31. However, as highlighted above the mean income of the households is 12,350, showing 60 percent of the income they earn is spent on food.

The median of the food expenditure i.e. 6460 is less than the mean, highlighting that the distribution would be right skewed. The skewness is 0.19 which indicates that the distribution would be symmetric but not a normal distribution.

The confidence interval with 95 percent confidence level is (-6857.27,7961.75), 95 of 100 such intervals would have true population mean for food expenditure.

The graph highlights is a visual representation of the sample statistics. The graph is peaking due to the sample variance, which is high due to the extreme values, as some households are spending a higher percentage on food due to the large household size.



Non-Food Expenditure: The table shows the total monthly non-food expenditure of the households along with the distribution among various items.

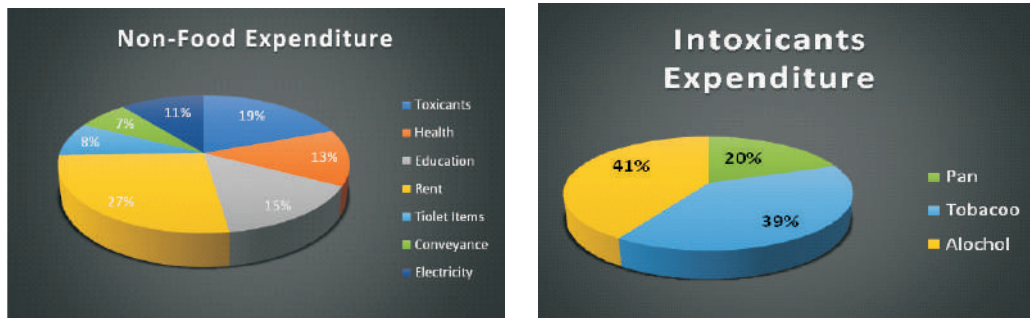
Table 7: Total Non-Food Expenditure

Non-Food Items	Total Expenditure (Rupees)
Toxicants	72060
Health	48950
Education	55868
Rent	100100
Toilet Items	29255
Conveyance	24950
Electricity	40520

Source-Primary Data

The pie chart highlights the non- food expenditure of the households respondents. The pie chart is for the non – food expenditure of the households for a month. The yearly, expenditure would include –

spending on clothes, festivals, purchase of durable goods, etc. This has not been included in this analysis, as the purpose was primarily monthly expenditure.



The second item with a high percentage of non-food expenditure is toxicants, within this also there are three categories. Out of the 25 percent non-food expenditure on intoxicants, 27 percent is spent on alcohol. A very interesting point, worth highlighting is that all the households surveyed had no time and source of leisure. Though, all the households had a phone but women barely had access. Households mentioned (the ones spending a nominal amount on alcohol) that after a long day at work which would be physically and mentally excruciating, the alcohol served as a reprieve. A few households were also spending their income on gambling, it is pertinent to highlight, the spending on intoxicants and gambling was being done by the male member of the house. Although only 10 percent of total non-food expenditure was on health, only two households had an Ayushman Bharat Card. The households that were spending a nominal amount on health. In case of any major health crisis or if the doctor has asked them to conduct certain tests, households relied on the good will of their family, employers, neighbours for borrowing.

TABLE 8 : TOTAL TOXICANT EXPENDITURE

Type of Toxicant	Total Expenditure (Rupees)
Pan	14150
Tobacco	28300
Alcohol	29610

Source-Primary Data

The table shows the total monthly expenditure of the households on three kinds of toxicants –pan, tobacco, and alcohol.

Social Sector Expenditure – Health and Education

Table 9 : Proportion of Income Spent on Education and Health

Parameters	Total Expenditure (In Rupees)	Total Income (In Rupees)	Percentage of the Income Spent
Health	48950	1282400	3.8
Education	55868	1282400	4.4

Source-Primary Data

The table shows the expenditure of the households on health and education. Within these also, there was a lot of variation. A number of children were enrolled in government schools. However, households with children enrolled in higher education institutes were spending more. Households barely provided their child with extra help via tuitions. The migrant workers who stayed on the site, couldn't send their children to school due to lack of awareness. A reason for low spending on education was – in some households the school going children, didn't complete school cause of lack of interest and were looking for jobs. The households pointed out though they could afford to spend small amounts on health in case something happened -fever, cough, stomach infection. However, if the problem turned out to be serious or needed a deeper diagnosis – they had to borrow. Households where the old people were surveyed pointed out how their children didn't get them the medicines and they had to look out for themselves. Some worked to meet their own needs, some were receiving aid from the government. Majority of the households didn't have the Ayushman Bharat Card. They weren't even aware of it. There were two prime reasons for not making the card- the lack of documents and a very high opportunity cost in terms of working hours and wage forgone. This was especially true for migrant workers- who were staying at the construction site or those who were staying on rent. However, households that were originally from the city itself had made their card and some were using it too

Sanitation Availability



The above chart highlights two basic parameters used to check whether the households have access to safe drinking water and toilets. There was one household which couldn't afford to pay the water bill, so the female went around during the day and collected water from various places. A common thread across majority of the households was that there was tap water for drinking. In many households – the infants were drinking tap water, whether this water is clean and has a correlation with a health of the children needs to be detected. As for the sanitation is concerned – the households who had access to a toilet, the toilet was within their premise. The ones who didn't have access to toilets, had two sub categories – one, where the toilet was constructed just outside the premise of the house. Second, was a construction worker, where a temporary solution was in place. A pit was dug with cloth around.

HOUSEHOLD MONTHLY INCOME ANALYSIS**Total Income Expenditure****Table 10: Total Income Expenditure -Savings**

Monthly Expenditure Items	Income Expenditure (Rupees)
Food	5,93,155
Toxicants	72,060
Health	48,950
Education	55,868
Rent	1,00,100
Toilet Items	29,255
Conveyance	24,950
Electricity	40,520
Saving	3,17,872

Source-Primary Data

The Table shows the distribution of Total Monthly Income Expenditure by the households on food and non-food items and savings.

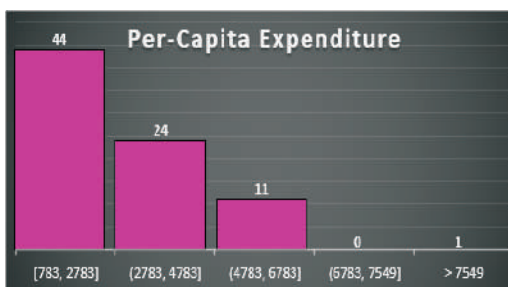
The above pie chart highlights the total income expenditure of the households. Though majority of the income is spent on food-highlighting the precarious lives this group is leading. Second area of spending is on rent. The households that had their own houses, saved more and spent a higher amount on food. Although, the spending on toxicants is one percent higher than education, however, this may not be exactly the case, the reasons being as follows, first most of the children in the households were studying in government schools, few households had infants, other household's children were grown up or back in the village. Few households saw education as channel for upward mobility, hence weren't very enthusiastic about providing their children with extra help -via tuitions. Only 4 percent of the income expenditure of the households surveyed was spent on conveyance, a primary reason being their work was close their house. The others, who had travelled a certain distance had their own vehicle bike or cycle. While the former spent money on fuel, the latter also required spending in the form of constant repairs.

Once the savings added, the composition of the income expenditure changes. The total expenditure on food reduces from 62 percent to 46 percent. Though, rent still continues to be the item after food, where a large percentage of the income is spent. The brown slice highlights the saving – how this was calculated was the total income minus the total monthly expenditure (food and non – food). Households were able to save 25 percent of their monthly income. However, majority of these savings were coming from migrant workers on the construction site, cause, two reasons – they hardly had non-food expenditure (education, rent, etc), secondly the reason why they came from such far off places was to send money to their families . The total amount of saving was 3,17,872.

Per Capita Average Monthly Expenditure- Comparisons

Table 11: Per Capita Monthly Consumption Expenditure-Food

Monthly Expenditure Items	Per Capita Expenditure (Rupees)
Total Food Expenditure	1611.8
Cereals	327.2
Pulses	135.4
Milk	242.5
Sugar	53.4
Egg, fish meat	196.3
Vegetables	433.2
Spices	58.7
Oil	165.2



Source-Primary Data

The diagram shows the MPCE of the households surveyed. The highest frequency is 44 with the MPCE 783-2753. This is the bracket where the mean MPCE for the entire sample also lies. The average monthly per capita expenditure of the households surveyed was-2621 out of this the average monthly per capita food expenditure was 1611.8 which is 60 percent of the total per capita monthly expenditure. The table shows the monthly per capita food expenditure of the households. It also highlights the monthly per capita expenditure on different food items.

Table 12: Comparison of the MPCE with NSSO: Consumption Survey (2011-12)

Items	2011-12(NSSO Data)	2011-12(Adjusted for Inflation) Economic Survey (2020-21)	2022-Households surveyed
Cereals	175.00	293.93	327.2
Pulses	54.00	90.70	135.4
Milk	184.00	309.05	242.5
Sugar, Spices	94.00	157.88	53.4
Egg, Fish, Meat	96.00	161.24	196.3
Vegetables	122.00	204.91	433.2
Oil	70.00	117.57	165.2
Total Food	795.00	1335.29	1611.8

Table 13: Comparison of the MPCE(Non-Food) with NSSO: Consumption Survey (2011-12)

MPCE	NSSO-65	NSSO,65 (Adjusted for Inflation)	2022-Household Figures
Toxicants	42	73.10	195.8
Fuel and Light	176	306.34	170.1
Education	182	316.78	151.8
Medical	146	254.12	133.0
Conveyance	171	297.63	67.8
Rent	164	285.45	272
Non-food	882	1535.16	1003

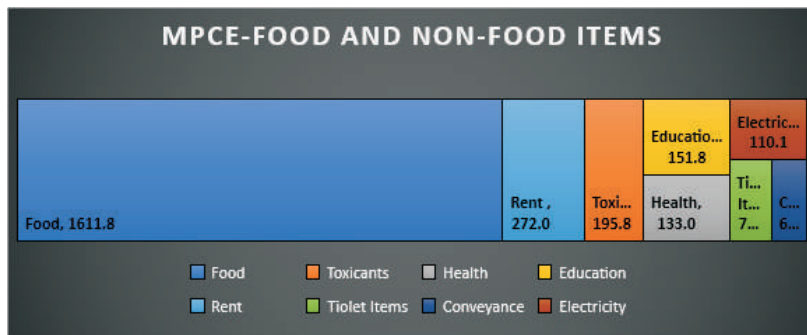
Source : Primary Source, NSSO: Consumption Survey, 65th Round

The Table makes a comparison in the monthly per capita expenditure from the 65th NSSO Consumption Expenditure Survey, 2011-12. In order, to make the comparisons, the findings have been adjusted for inflation the using the CPI. The CPI figures for 2011-12 and 2020-21 are 206 and 346. These values are taken from the economic survey. The table shows that per capita expenditure on cereals has fallen by 4 %. However, the per-capita expenditure on pulses has increased by 49%. The monthly per capita expenditure has increased for vegetables from 117.57 to 137.93 which is 84%.

After 10 years of economic growth the monthly per capita expenditure on food has increased from 1335.29-1415.65 which is 6.01%.

The Table compares the per capita monthly expenditure on non-food items. In order, to make the comparisons, the findings have been adjusted for inflation the using the CPI. The CPI figures for 2011-12 and 2020-21 are 185 and 322. These values are taken from the economic survey. The MPCE on rent has increased by 13%. Though, there is an increase the per capita expenditure on rent at the same time there has been a fall in the per capita expenditure on fuel and light from 306.34 to 127.63 that means it has decreased by 58%, probably cause the rent includes the electricity bill. Thus, that is inflating the rent expenditure and reducing the electricity bill. The price of electricity doing down can also be a reason. The expenditure could have also gone up because of the increase in migration. Although the expenditure on education has fallen abysmally but the per capita expenditure on toxicants has increased by a three-fold amount i.e. an increase of 198%.

MPCE of the Households



The above tree map shows the MPCE for the households surveyed. The MPCE for food is the highest at rupees 1611.8. However, the per capita expenditure on rent is rupees 272.0 which is in the second position and rupees 195.48 for toxicants. The MPCE for toxicants is higher than education. The possible reasons for this are that, a majority of the households were consuming one of three types of toxicants, a possible reason, it being a substitute for leisure. On the other hand, the per capita expenditure on education is low cause lesser number of children were going to schools from these households – because some had simply quit studying, some were enrolled in higher education institutions. Also, they were enrolled in government schools, where the fees are low.

PROPORTION OF THE INCOME SPENT ON DIFFERENT ITEMS

Table 14: Proportion of Monthly Income Spent on Different Goods

Household Monthly Expenditure Items	Total Expenditure (In Rupees)	Total Income (In Rupees)	Proportion of Income Spent	Percentage of the Income
Food	5,93,155	1282400	0.46	46.25
Toxicants	72,060	1282400	0.05	5.6
Health	48,950	1282400	0.03	3.81
Education	55,868	1282400	0.04	4.35
Rent	1,00,100	1282400	0.07	7.80
Toilet Items	29,555	1282400	0.02	2.30
Conveyance	24,950	1282400	0.01	1.94
Electricity	40520	1282400	0.03	3.15
Total	964528	1282400	0.75	75.2

Source : Primary Source

The above table highlights the proportion of the income spent on food and non-food items. The households surveyed spend 0.46 or 46% to their total monthly income on food. The second area where 0.07 proportion of the income was spent was rent, this is after twenty households had their own houses. A very pertinent point to note is that the proportional of income spent on toxicants and education is very close with 0.05 and 0.04. Highlighting the households spent a great amount on toxicants which serves as a substitute for leisure.

REGRESSION MODELS

Consumption and Income, computation of MPS

$$Y_i = \beta_0 + \beta_1 X_i + \varepsilon_i$$

Y_i : saving

β_0 : Constant Co-efficient

β_1 : For a unit change in income the saving changes by this amount on an average i.e. MPS (Marginal Propensity to Save)

X_i : Income

ε_i : Residual

saving	Coef.	St. Err.	t-value	p-value	[95% Conf	Interval]	Sig
income	.982	.063	15.61	0	.857	1.107	***
Constant	-11764.206	1147.599	-10.25	0	-14048.899	-9479.512	***
Mean dependent var	3973.400		SD dependent var		9884.964		
R-squared	0.757		Number of obs		80		
F-test	243.555		Prob > F		0.000		
Akaike crit. (AIC)	1588.510		Bayesian crit. (BIC)		1593.274		

*** $p < .01$, ** $p < .05$, * $p < .1$

INTERPRETATION

0.98- The value shows that for a unit change in income the saving expenditure on an average change by 0.98 unit. This is consistent with Keynesian analysis of low-income households having a very high MPS.

P value - .000 (Exact Level of Significance) – As the value is $0.2 < 1$ showing that the β_1 is significant at one percent.

Confidence Interval: 0.85-1.107 - at the true population parameter -i.e. $\beta_1 = 0$ does not lie in the interval, hence we reject the null hypothesis. And accept the alternative. Income does have a significant impact on saving.

FOOD EXPENDITURE AND INCOME

$$Y_i = \beta_0 + \beta_1 X_i + \varepsilon_i$$

Y_i : Food expenditure

β_0 : Constant Co-efficient

β_1 : For a unit change in income the food expenditure changes by this amount on an average

X_i : Income

ε_i : Residual

Results :

food	Coef.	St. Err.	t-value	p-value	[95% Conf	Interval]	Sig
income	.08	.031	2.60	.011	.019	.141	**
Constant	6126.298	560.879	10.92	0	5009.674	7242.921	***
Mean dependent var	7409.313		SD dependent var	2480.647			
R-squared	0.080		Number of obs	80			
F-test	6.777		Prob > F	0.011			
Akaike crit. (AIC)	1473.963		Bayesian crit. (BIC)	1478.727			

*** $p < .01$, ** $p < .05$, * $p < .1$

Interpretation :

0.08- The value highlights for a unit change in income the food expenditure on an average by 0.08units.

p-value-0.011 – Shows the Exact Level of Significance

Hence the result is significant at 5 % (0.011*100=1.1<5)

The confidence interval: 0.019- 0.141., at the true population parameter -i.e. $\beta_1 = 0$ does not lie in the interval, hence we reject the null hypothesis. And accept the alternative. Income does have a significant impact on the food expenditure.

R-squared= 0.08; 8 % of the total variation in food expenditure is explained by income.

Non-Food Expenditure and Income

$$Y_i = \beta_0 + \beta_1 X_i + \varepsilon_i$$

Y_i : Non-Food expenditure

β_0 : Constant Co-efficient

β_1 : For a unit change in income the non-food expenditure changes by this amount on an average

X_i : Income

ε_i : Residual

Results

nonfood	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
income	.92	.031	29.92	0	.859	.981	***
Constant	-6126.298	560.879	-10.92	0	-7242.921	-5009.674	***
Mean dependent var	8620.688		SD dependent var	8405.230			
R-squared	0.920		Number of obs	80			
F-test	895.299		Prob > F	0.000			
Akaike crit. (AIC)	1473.963		Bayesian crit. (BIC)	1478.727			

*** $p < .01$, ** $p < .05$, * $p < .1$

Interpretation

0.92 – Shows that for a unit change in income the average non-food expenditure increases by 0.92.

The p-value is 0, highlighting the value of β_1 is significant at 1 percent.

The confidence interval at 0.859-0.981, as the null hypothesis doesn't lie in the interval, we reject the null hypothesis. Highlighting that income has a significant impact on the non-food expenditure.

R-squared-0.92, showing how 92% variation in the non -food expenditure is explained by the income.

INCOME ELASTICITY OF FOOD

$$\log y_i = \beta_0 + \beta_1 \log x_i + \varepsilon_i$$

$\log y_i$ - the food expenditure

β_0 - constant coefficient

β_1 - For a 1 percent change in income what is the percentage change in food expenditure

$\log X_i$ - income

ε_i - Residual

	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Log food							
Log income	.279	.078	3.58	.001	.124	.434	***
Constant	6.182	.745	8.29	0	4.698	7.665	***
Mean dependent var	8.848		SD dependent var	0.371			
R-squared	0.141		Number of obs	80			
F-test	12.834		Prob > F	0.001			
Akaike crit. (AIC)	59.369		Bayesian crit. (BIC)	64.133			

*** $p < .01$, ** $p < .05$, * $p < .1$

0.27- For 1 % change in income the food expenditure changes by 0.27%. This is a direct measure of elasticity, also showing how the demand for food is income inelastic.

p=0 showing how the results is significant at 1 percent.

INCOME ELASTICITY OF NON-FOOD ITEMS

$$\log y_i = \beta_0 + \beta_1 \log x_i + \varepsilon_i$$

$\log y_i$ - non-food expenditure

β_0 - constant coefficient

β_1 - For a 1 percent change in income what is the percentage change in non-food expenditure

$\log X_i$ - income

ε_i - Residual

Results

Log non-food	Coef.	St. Err.	t-value	p-value	[95% Conf	Interval]	Sig
Log income	1.644	.131	12.59	0	1.383	1.904	***
Constant	-7.006	1.256	-5.58	0	-9.51	-4.502	***
Mean dependent var	8.791		SD dependent var	0.912			
R-squared	0.685		Number of obs	75			
F-test	158.427		Prob > F	0.000			
Akaike crit. (AIC)	115.427		Bayesian crit. (BIC)	120.062			

*** $p < .01$, ** $p < .05$, * $p < .1$

1.64- Shows that for 1 percent change in income there 1.64 change in the non-food expenditure. This is a direct measure of elasticity. Highlighting how non-food expenditure is highly income elastic.

The confidence interval, 1.38-1.90 and the null hypothesis i.e β_1 doesn't lie within the interval, hence we reject the null. The measure of income elasticity is significant.

CONCLUSIONS AND POLICY SUGGESTIONS

The core-finding of the study undertaken is that households who are living just above the poverty (earning \$6.11, thrice the amount set by the World Bank -\$1.90) are leading extremely precarious lives. More than 55 percent of what they earn is spent on food. Even the households that use the Ration Card have to purchase rice and wheat from outside, not reducing the food bill for these households. Within the food expenditure – a high percentage was being spent on vegetables and oil. Price volatility in oil for these households the most.

The mean income of the households was rupees 11,547 – however what should be remembered is that there is no uniformity of this wage and it tends to vary according to the seasons. Along, with that households which are working under an employer – like the construction workers, there is constant delay of the wage payment.

The households are simply not earning enough to insulate their families and themselves from some minor economic shock. However, the spending on wedding is an important event, for which households don't mind cutting their pockets. Even though these households are able to save from their monthly income, the savings are undertaken to send back to their village where other members who rely on them reside. There is no social security – this is one of the major reasons why these household wanted to have a male child who would indirectly and directly take care of them in the future.

These households have to borrow heavily when there is any form of economic crisis – minor or major and this erodes their future purchasing power. Many vendors surveyed expressed how covid completely eroded their income and the past savings. Families where children fall ill severely, have to borrow to meet the cost of tests, medicines, doctor's 'fee payment'. Despite all the hardships, the only hope of these households is that the government would help them in one way or another. When asked what form of help – all of them mentioned some form of transfer or another, for example, build houses, cash payments, waiver the loan. No one mentioned the provision of quality education of their children, better working conditions, social security, health benefits, upgrading their skills to earn better, improve employment opportunities. In fact, these are areas where these households have little hope and they think that the least the government can do is provide them with some tangible benefits.

The first few years of the child's 'life is immensely important for the cognitive development, helping the child lead a healthy life. This has been shown in survey after survey. However, the penetration of this is barely visible on the ground. The households surveyed with infants complained of the children falling ill often, not eating well, being underweight, weak. This was especially true of children staying on construction sites.

It is important to highlight that the spending of these household on the education of their children tends to be extremely low and a relatively small percentage compared to the other income groups in urban areas. This is a very serious issue cause firstly, the nutritional levels of these children are low to begin with, then the education they are receiving is not of good quality – with very weak basis. Thus, in a world which is ad mist an IT revolution, these children will have a hard time acquiring the skills needed, which will then lead to them doing the same low paying jobs and falling into the low-income group.

All the households surveyed were aware of the Ayushman Bharat Card but barely 2-3 households had

gotten the card made. Migrant workers didn't know anything about the new city and also lacked the confidence to move around plus they wouldn't afford to miss work. This was true of street vendors as well, who couldn't take some time off because the opportunity cost was too high.

All the households had access to water, however they were using tap water for drinking as well, whether this is safe or not, needs to be studied. Although they had access to water, the sanitation around the house was not very promising, few households were staying near a channel which was surrounded with garbage and pigs. The toilets being used by the construction workers were pits with cloth around. Lastly, the Vidhwa Pension Scheme of the Central Government is of immense help to the households availing the scheme. This is especially beneficial for women who are being treated as a burden by their children, though the amount is small, it helps them meet their small requirements.

The women were doing all the household chores before leaving for work and after coming back from work, along with that some were dealing and fighting with violence perpetuated by their husbands after they drink at night. It is very important to highlight that, though, men too are doing a lot of gruelling work, however their work gets over after they come back home and their leisure – in terms of drinking, gambling, using their phone begins. But, for the women the work simply never gets over. Leisure as an economic good is not at all consumed by these members of the households. The households where women are also working, the burden on them is enormous – physical and mental. The opportunities for upward mobility for this group can only be provided by the State.

POLICY SUGGESTIONS

- Ration Card- From the survey majority of the households didn't have a Ration card, it is very important that the municipal corporation on a bi-annual basis carried out the provision of ration card. The migrant workers from different states need to be informed of the 'One nation, One ration card scheme'. This can be done by the contractor or the municipal corporation during its bi-annual provision of Ration card, can carry out awareness for construction site workers
- Households that possessed the Ration Card, weren't necessarily using it because the FPS were far away from their place of residence and some couldn't afford to leave one day at work to get the card made.
- As per items in the ration card, though the quantity during Covid was increased to 35kg, which is way more than the average. With so much of excess grain lying in warehouses, the allocation per household needs to be increased from 10kg to 20kg, because 10kg is too little and the household has to purchase from the market. Or if this is not economically feasible for the government, it should let the wheat and rice be at the respective allocation and increase the allocation for pulses. Increasing the allocation for pulses has two benefits – nutrition and will reduce their food bill.
- An inflation in the oil prices has a huge impact on the food bill of these households, making them cut expenditure from other places. Thus, increasing domestic production would prevent such fluctuations and reduce the impact of the inflation on the low-income households.
- Health- The children, who are the future human resource for the country and in order to develop this resource it needs the right nutrition, education and opportunities.

Nutrition – The government at the Central and the State have started various programmes but the targeting of the urban poor is a major issue. To begin with, the state government needs to work with local government, this can only be done on the ground, so again emphasis on the local government. The municipal corporation needs to increase the awareness level at construction sites, because many families are staying there or take address from the contractor to find where the

local workers are staying.

Along with awareness and group education, basic amenities can be provided at the site itself for the children -deworming pills, iodine powder, iron for the mother.

For such awareness workshops, college students can be hired on rotational basis very two months with a certificate and nominal stipend(if the finances support) to incentivize them. This would make these workshops – lively and even the young would get to know about the stark reality on the ground. During, these workshops, other government schemes like Ayushman Bharat, State Health Schemes can be advertised so that information is spread and the doubts are cleared there itself.

- Education-Enrolling the children in education institutions is necessary but not a sufficient condition at all. Barely 2-3 households could help their children with homework. There are two areas which need to be focused on – first that, there is no skipping the fixing of the education system in terms of quality. Second, as children need extra help outside, it is very important that local government do tie ups with the enthusiastic NGO working in this area to bridge the gap.
- Another initiative that can be initially taken at the school level is that – focusing on the mental health, a lot of children from these households are seeing a lot of violence in their families and the surroundings they are living in, also there is peer pressure to miss school and join shady gangs and the child can easily get lost.
- Women-Despite the law, wage discrimination at the construction site continues to exist. It is very interesting to note that women and men acknowledge this problem but lack bargaining power. During, the visit to site I met an official appointed by the government under the smart city project – for monitoring the social justice for children and being vigilant on whether the children are playing at the construction sites. A similar provision can made or the same officer can be assigned with additional duties to ensure women aren't discriminated against.
However, there is a large group of women who are unable to find decent work near their homes. Areas where a lot of families live– these women can form self -help groups, or make incents, knitting projects, in short labour-intensive projects. There needs to be certain medium via which the producers know how and where to reach these women.
The Swayam Portal can be used as a medium for the women who never went to school or the ones who wish to continue to take online classes and exams be held on regular basis to certify that they passed a particular class. As is the case with NPTEL certificate courses. This will empower these women and help them acquire jobs in angawadis or as ASHA workers, in short enhance their opportunity. A hurdle, would be advertising such a scheme and also motivating women to take part, cause their confidence levels are low – with the set mindset that they are meant to do household work.
- Social Security-Firstly, a data base needs to be made of either the unorganised sector or of particular categories within the unorganised sector. College students can be trained and used to collect this data.

The government can adopt a 30-70 or 20-80 or 50-50, with varying rate of interest. Here monthly contributions can be made by the worker (in case of 30-70) 30% would be by the government and 70% by the government. However, this should be digital as these will be helpful in the case of migrant workers and also will also save them time. A pilot can be conducted to see the feasibility.

- Construction Workers – This is most vulnerable group. Can higher wages be paid – this needs to be studied. Three things which can be done in the short run – timely payment of wage, prevent wage discrimination and no wage cut for certain number of holidays.
Also, if this is not pulling the thread too long leisure activities like screening a film in native language of these workers, once a month would be relaxing and rejuvenating for the workers and their children.
- Public Transport – There is no substitute for a large public transport system, it will save money and maybe help women get out of the house and pick up work that is a bit far off.
Skilling Programme-Skill India is already a flagship programme, these needs to be encouraged among households who have children that have left studies due to lack of interest.

GROWTH AND PRODUCTIVITY OF INDIA'S TEXTILE SECTOR IN PRE AND POST MFA: EVIDENCE FROM ANNUAL SURVEY OF INDUSTRY

Satyam Bharti*

ABSTRACT

India's textile sector is one of the country's most important economic drivers. After agriculture, it employs the biggest number of people; it employs roughly 40 million people directly and 60 million indirectly. Furthermore, it provides roughly 4% of GDP and has a 14% share of industrial production. The elimination of the Multi-Fibre Arrangement (MFA) was seen as beneficial to developing countries like India, which had a big manufacturing base. The study uses Annual Survey of Industries (ASI) unit-level data for the years 1998-99 to 2019-20 and the period from 1998-99 to 2004-05 and from 2005-06 to 2019-20 are considered for pre and post-MFA period respectively. The analysis shows that labor productivity increased in the post-MFA period compared to the pre-MFA period. The Manufacture of Other Textiles (NIC 172), Manufacture of Knitted and Crocheted Fabrics (NIC 173), Spinning, Weaving, and Finishing had the highest average labor productivity during the Pre MFA period (NIC 171). The result also shows that the average growth of total factor productivity was positive and higher in post-MFA compared to pre MFA era. On the other hand, numerous obstacles prevent the Indian textile industry from increasing its production. To make significant progress in this area, timely policy actions are necessary.

Keywords: *Textile, Productivity, Manufacturing, Multi-Fibre Arrangement (MFA)*

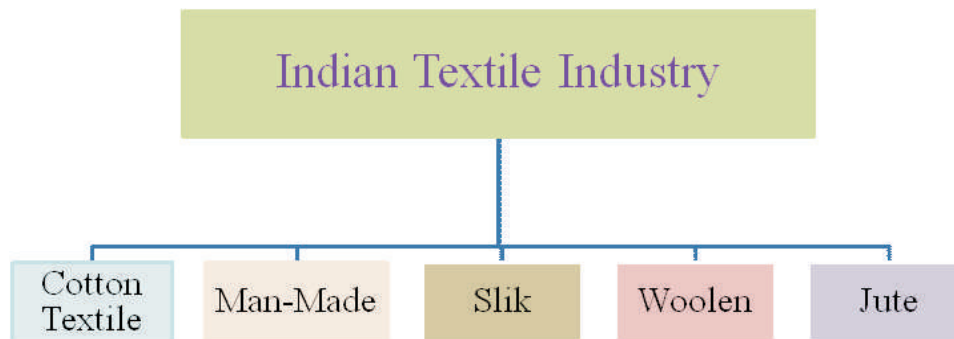
I. INTRODUCTION

Economic reforms introduced in July 1991 signified a significant shift in economic policy and philosophy at the state level in India. A severe macroeconomic crisis in the form of diminishing foreign exchange reserves prompted a rethinking of economic strategies and plans. Excessive regulations on domestic transactions were liberalized, and the Indian economy was integrated with global economic norms. Shifts in policies paved the way for increased exports, particularly in the textile and readymade garment industries. On the domestic front, policy changes included the elimination of licensing requirements for major industries, the opening up of areas previously reserved exclusively for the public sector to the private sector, the easing of restrictions for mega-industrial groups, and price control reforms in the financial and capital markets. As a result of these policy improvements, India's textile industry has become more competitive (Kim, 2019). The Indian textile industry, which comprises the garment and clothing industries (Figure 1), employs 12.3 million people and produces 3.6 million tonnes of textiles and apparel. The textile industry accounts for 11.4% of India's overall exports (GoI, 2022). India is a major player in the global textile industry; it does not rely on imports in this area, and whatever it does import is re-exported. India, with exports of US \$ 38.6 billion, is second only to China in terms of textile and garment exports, according to the United Nations statistics repository on trade (Yarn, 2020). In the 2020-21 fiscal year, India ranked

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sixth in terms of apparel exports, below China, Bangladesh, Italy, Germany, and Vietnam (GoI, 2022). The most major result of trade and industrial policy liberalization has been the termination of MFA-mandated quotas, as well as the removal of quantitative limits imposed during the Agreement on Textiles and Clothing (ATC) regime. It inevitably resulted in a reorganization of organized labor relations within the confines of the production system. Inevitably, the end of the ATC regime necessitated domestic adjustments in textile and garment manufacturing. As a result of the removal of the quota system, the global market became more open, resulting in increased competitiveness at the international level, necessitating the introduction of reforms to ensure smooth integration with global trade practices. Intensification of rivalry among countries that make textiles and garments will almost certainly have an impact on working and living circumstances.

Figure-1: Indian Textile Industry



2. LITERATURE REVIEW

India's textile sector is one of the country's most important economic drivers. After agriculture, it employs the biggest number of people; it employs roughly 40 million people directly and 60 million indirectly. Furthermore, it provides roughly 4% of the GDP and has a 14% share of industrial production (Manoj and Muraleedharan, 2019). The elimination of the Multi-Fibre Arrangement (MFA) was seen as beneficial to developing countries like India, which had a big manufacturing base. The widespread consensus was that loosening limitations would boost efficiency and consequently increase productivity in the Indian textile sector. This assumption is based on Verdoon's law, which argues that increasing output leads to higher productivity. After quotas were removed, productivity increased, according to Krishna and Mitra (1998). In India, Hashim (2004) looked examined the relationship between unit cost and productivity in the cotton yarn, man-made textiles, and readymade garments industries. He concluded that industries with lower unit costs of production had higher productivity. According to Joshi and Singh (2010), the Indian readymade garment sector experienced a moderate growth rate of Total Factor Productivity of 1.7 percent from 2002 to 2007. They, on the other hand, ascribed increased output to technological advancements. Furthermore, they discovered that business size was an essential influence on productivity growth; medium and large scale enterprises tended to be more productive than smaller ones. Technological development, according to Gambhir and Sharma (2015), drives productivity increase, and economies of scale also have an impact on productivity growth in the Indian readymade garment business.

The Indian textile sector has been integrating into the global trade framework as a result of improved performance following reforms. Since the 1990s, India has risen to become one of the top ten garment

exporters (Tewari, 2005). In the 1980s, India grew at a compound annual rate of 22 percent, and in the 1990s, it grew at a pace of around 13 percent (Chatterjee and Mohan, 1993). Although the export growth rate is lower than that of countries such as China, it can still be considered respectable. Because this industry still has constraints that affect productivity, such as outdated technology, underutilized capacity, small scales of operation, and so on, productivity improvement remains critical to attaining higher growth (Tewari, 2005). Various studies have linked increased productivity in India's textile industry to improved market conditions following the repeal of the MFA. India was seen as one of the key beneficiaries of the removal of quotas since it would be able to increase both production and productivity if it took advantage of the opportunities presented by the post-MFA trading regime. We will now go over many areas of productivity in greater depth.

This article focuses on growth and productivity in the textile sector and its sub-sectors of it during the pre and post-MFA period. The textile industry saw a boost in output as the volume of production climbed significantly. Increased output levels could have occurred as a result of increased input application and productivity. The focus of the article is on the degree and growth of total factor productivity (TFP), as well as other components of TFP, such as 'Technical Efficiency Change' (TEC) and 'Technical Progress' (TP), and the role these two factors play in TFP and production enhancement, particularly in the Indian textile industry.

3. DATA SOURCE AND METHODOLOGY

Annual Survey of Industries (ASI) unit-level data has been used for the years 1998-99 to 2019-20. ASI surveys manufacturing industries established under Sections 2m(i) and 2m(ii) of the Factories Act, 1948, but does not include businesses registered under Section 85. ASI does the survey annually. The study uses NIC Code 2004 and subsequently, concordance has been done at NIC 2004. The NIC 2004 Code of 171 (Spinning, Weaving and Finishing), 172 (Manufacture of Other Textiles), 173 (Manufacture of Knitted & Crocheted Fabrics), 181 (Manufacture of Wearing Apparels), and 182 (Dressing and Dyeing of Fur) are used for the study and these NIC Codes also cover total textile industry. The period from 1998-99 to 2004-05 and from 2005-06 to 2019-20 are considered for pre and post-MFA periods respectively.

The wholesale Price Index (WPI) is available at a different base price which is available from the Office of Economic Advisor, Government of India. The base year of the last series, which is 2011-12 has been used as a base year for this study. Accordingly, concordance has been done to make series at base price 2011-12. WPI of Machinery and Machine Tools is used to deflate the output value and capital whereas WPI of Fuel & Power, and Non-Food Primary Articles and Minerals are used to deflate the energy and material value respectively.

4. RESULTS AND ANALYSIS

This section explains the results of the empirical analysis related to labor productivity, capital productivity, growth of factories, employment, and GVA of sub-sectors of the textile industry. Table 1 shows the results of labor productivity and capital productivity before and after MFA. The analysis shows that labor productivity increased in the post-MFA period compared to the pre-MFA period. The Manufacture of Other Textiles (NIC 172), Manufacture of Knitted & Crocheted Fabrics (NIC 173), Spinning, Weaving, and Finishing (NIC 171) had the highest average labor productivity during the Pre MFA period. The industry with the lowest average labor productivity was Dressing and Dyeing of Fur (NIC 182), followed by the Manufacture of Wearing Apparel (NIC 181). One of the variables causing the lowest labor productivity in the dressing and dyeing of fur materials is the workforce's

demographics compared to those of competing nations. In the majority of India's cotton weaving clusters; male labor force participation rates are much greater than female labor force participation rates (Manoj and Muraleedharan, 2019). The highly productive female workforce gives competing nations an edge over India in terms of labor productivity. Strict restrictions that forbid women from working into the night even if they are eager to do so hurt production since they shorten the factory's overall working hours. The industry with the lowest average labor productivity during the post-MFA period was the Manufacture of Knitted and Crocheted Fabrics (NIC 143) followed by the Manufacture of Wearing Apparel (NIC 181) and Dressing and Dyeing of Fur (182). The strict labor restrictions that India adheres to in comparison to other competitive nations may be one of the causes of the low labor productivity. Due to the strict labor rules, there have been reports of prolonged absences from work, decreased productivity, and other problems that affect the productivity of the Indian labor force in the sector. In addition, there is a shortage of fresh skilled individuals entering the sector, and Indian workers lag behind those in other nations. Even if Indian enterprises import equipment, there isn't enough skilled labor to utilize the equipment to its fullest extent (Manoj and Muraleedharan, 2019). The issue has been resolved over time, and in the post-MFA phase, it becomes apparent. As a result, labor productivity has increased in all five sub-sectors of the textile industry in the post-MFA compared to pre MFA period.

Table1: Average Labour and Capital Productivity in Pre and Post MFA

NIC Code	Sub Sector	Labour Productivity		Capital Productivity	
		Pre MFA	Post MFA	Pre MFA	Post MFA
171	Spinning, Weaving, and Finishing	1.95	3.32	0.38	0.38
172	Manufacture of Other Textiles	2.12	3.43	0.58	0.58
173	Manufacture of Knitted & Crocheted Fabrics	2.01	2.16	0.73	1.05
181	Manufacture of Wearing Apparels	1.64	2.20	1.14	1.14
182	Dressing and Dyeing of Fur	1.48	2.49	1.39	1.33

Source: Author's Estimation from ASI Unit-level Data.

Table-2: Average Annual Growth Rate in Pre and Post MFA

NIC Code	Sub Sector	No of Factory		Total Person Engaged		GVA	
		Pre MFA	Post MFA	Pre MFA	Post MFA	Pre MFA	Post MFA
171	Spinning, Weaving and Finishing	-2.35	2.39	-2.58	1.87	0.67	7.81
172	Manufacture of Other Textiles	5.83	8.38	6.97	17.95	8.36	15.55
173	Manufacture of Knitted & Crocheted Fabrics	7.33	7.30	21.33	8.51	11.76	14.77
181	Manufacture of Wearing Apparels	0.07	6.04	9.17	4.62	5.94	10.16
182	Dressing and Dyeing of Fur	-13.08	28.07	-9.41	62.85	27.15	76.09

Source: Author's Estimation from ASI Unit-level Data.

Table2 shows the capital productivity in the pre and post-MFA period. It indicates that average capital productivity was higher in post-MFA compared to pre-MFA. The industry's average capital

productivity ratio before the MFA, meaning that for every rupee invested in capital, the production could be produced more than that. It is important to note that Spinning, Weaving, and Finishing (NIC 171), Manufacture of Other Textiles (NIC 172), and Manufacture of Wearing Apparels (NIC 181) have the same capital productivity in pre and post-MFA periods. The Dressing and Dyeing of Fur (NIC 182) had the highest capital productivity followed by Manufacturing of Wearing Apparels (NIC 181) in the pre and post-MFA. Spinning, Weaving, and Finishing (NIC 171) and Manufacture of Other Textiles (NIC 172) had the lowest capital productivity during the pre and post-MFA era.

The decreased productivity of the new firms that have entered the market in the post-MFA period may be one of the causes contributing to the low capital productivity. To be effective and competitive, the new firms would unquestionably need enough time to adjust to the new (technology) environment. The same rationale holds in this situation, where the gradual removal of quota limits would have encouraged more non-exporting firms to start exporting. There may have been a decline in those firms' overall efficiency because it would have taken time for them to adapt to the new environment. The textile industry's entrepreneurs fail with a lack of flexibility in reducing their inputs to an effective level that would enable these businesses to achieve higher efficiency in terms of operating at the frontier due to rigidities in the form of strict domestic rules (Sasidaran and Shanmugam, 2008). Other variables that could contribute to the sharp drop in capital productivity include the usage of inefficient assets (low capacity utilization), the adoption of more capital-intensive technology, and changes in the relative value of output to capital stock (Bedi & Cororation, 2008).

The Dressing and Dyeing of Fur earned the highest average annual growth rate (AAGR) of several firms, a total person engaged and gross value added (GVA) during the post-MFA era (Table 2). In contrast, this sector's AAGR for all of these indicators except GVA before the MFA was negative. The sudden rise in investment in additional spindles during this time may be one of the causes of the increased growth rate. This indicates that, while the removal of MFA has increased the growth of India's textile industry when seen in isolation, it has also allowed other nations to take advantage of the situation, with India falling behind Bangladesh in this case. The causes, as previously indicated, are increasing costs and technological obsolescence, both of which must be addressed if India is to remain competitive in global textile and garment commerce. The Indian textile sector has been integrating into the global trade framework as a result of improved performance following reforms. India has risen to become one of the top ten exporters of clothing during the 1990s. India's compound annual growth rate was 22 percent in the 1980s and about 13 percent in the 1990s. Even if it is smaller than in nations like China, the export growth rate is still respectable. Productivity development is essential to achieving better growth because this industry still has limitations that reduce productivity, such as out-of-date technology, underutilized capacity, small scales of operation, and so on (Tewari, 2005).

5. MEASUREMENT TOTAL FACTOR PRODUCTIVITY OF INDIA'S TEXTILE SECTOR

The term "total factor productivity" refers to the level of efficiency attained in production or unit of production (Balakrishna and Pushpangadan, 2004). Productivity that arises as a result of a single component does not reflect the firm's overall productive capacity, nor does it explain its growth or decline. TFP solves this difficulty because it reflects the measurement of increased productivity as a result of total inputs. Abramowitz (1956) and Solow (1957) could be considered TFP's forefathers in terms of conception and formulation. According to Solow, 'residue' is defined as a rate of increase in output that cannot be measured in terms of a rise in the level of input. This is referred to as the 'Solow Residual Index' (Solow; 1957), which Abramowitz refers to as a 'measure of ignorance.'

Single factor productivity or partial productivity and total factor productivity are techniques to estimate productivity. The term “partial productivity” refers to the amount of value added to the quantity of the production factor for which productivity is to be calculated (e.g., labor productivity or capital productivity). Partial productivity measurement methodologies offer a hazy picture of the contribution produced by these components in modifying the level of production when the proportion in which the factors of production (labor and capital) are pooled changes. The productivity of labor is overstated and that of capital is understated when the capital-labor ratio has a rising trend. The partial measure does not reflect overall changes in productive capacity since it is affected by changes in the composition of inputs (Majumdar; 2004, Mahadevan; 2003 and Joshi & Singh; 2010). Thus, the paper estimates both partial and total factor productivity for the textile industry.

The frontier approach and non-frontier approach are the two main methods for computing TFP growth. The definition of the frontier is where the main difference between the frontier and non-frontier approaches lies. The goal of the frontier approach is to determine the boundary function or the optimal positions that can be obtained given the inputs or prices. A "production frontier" tracks the set of maximum feasible output for a given set of inputs and technology, whereas a "cost frontier" tracks the minimal attainable cost given input prices and output. However, while using a non-frontier technique, we assumed that the function was average and estimated ordinary least square regression. In addition, whereas the non-frontier approach presupposes that firms are technically efficient, the frontier approach identifies the role of technical efficiency in total firm performance. The ability to estimate data using both parametric and non-parametric techniques is a shared feature of the frontier and non-frontier approaches. In the parametric approach, the frontier is given an explicit functional form, and the parameters are estimated econometrically using sample data for the inputs and outputs. This suggests that the functional form supplied affects how accurate the estimates that are obtained are. The primary benefit of the parametric approach is the statistical test-based validation of the econometrically derived parameter. The primary disadvantage of the parametric approach, however, is the functional form's neo-classical production function assumption. According to Lovell (1993), no method is 100 percent accurate for measuring the growth in total factor productivity. The method chosen to gauge total factor productivity growth largely depends on the research issue the researcher is attempting to answer. For instance, a non-frontier approach might be preferable if the study's objective was to determine how much each person's input contributed to output growth or to determine how much output, on average, was received from a given collection of inputs. On the other side, the frontier approach would be the ideal strategy to address the issues of maximum productive or best practice output levels, given the inputs and technologies. Therefore, the study uses a parametric stochastic frontier approach through Data Envelopment Analysis (DEA) to estimate the total factor productivity.

To construct the Malmquist productivity index for the textile industry, a DEA approach based on linear programming is used. When assessing changes in productivity, the linear programming (LP) methodology has two benefits over the econometric method (Grosskopf, 1986). First, unlike econometric research, it compares the states to the “best” rather than the “average” performance of the technology. Second, no special functional form or error structure needs to be specified. The LP technique enables the recovery of multiple productivity and efficiency indicators during the process in a straightforwardly calculable manner. The output-oriented MPI change index is defined as follows by Fare et al. (1994):

$$M_0(x^{t+1}, y^{t+1}, x^t, y^t) = \left[\frac{D_o^t(x^{t+1}, y^{t+1})}{D_o^t(x^t, y^t)} * \frac{D_o^t(x^{t+1}, y^{t+1})}{D_o^{t+1}(x^t, y^t)} \right]^{\frac{1}{2}}$$

A value with a value of M_0 performs better from period t to period $t+1$ and vice versa than one with a positive TFPG value. The Malmquist index is an effective method because of a variety of factors. It can be created using distance functions, which are basic metrics that just consider the amounts of input and output rather than price. Further, the index can be broken down into components representing scale effect, technical efficiency change, and technical change. Pure efficiency change and scale components can be separated from efficiency change further. It is also possible to separate the technical change component into pure technical change, input-biased, and output-biased technical change components. Thus, the TFP growth rate can be estimated as;

$$\text{TFPG (Per cent)} = (\text{TFPCH}-1) * 100$$

Measurement of Outputs and Inputs

ASI data for the period from 1998-99 to 2019-20 has been used at NIC 2008. This study has involved the preparation of data of time series based on NIC 2004 through concordance tables which are three-digit level. The study used a Cobb-Douglas production function to calculate total factor productivity and presume constant returns to scale. The production function is described as follows;

$$O = A(t) F(K, L, M, E)$$

O, K, L, M, and E stand for gross output value, capital, labor, material, and energy, respectively, while A(t) is a multiplicative factor.

Output: Real gross output has been taken as output for the estimation of TFP which is based on the function of gross output. The data on gross output has been drawn from ASI and it has been deflated by using the Machinery and Machinery Tool of Wholesale Price Index (WPI) with the base price 2011-12.

Capital: After depreciation, the value of the fixed assets possessed by the unit reflects fixed capital. Such assets typically have a long productive lifespan than a year. It includes used, freshly acquired, and self-built assets that are employed in manufacturing, transportation, life or amusement amenities, housing units, and health and educational institutions for factory workers. To estimate the capital, the perpetual inventory method (PIM) is applied. The PIM put forward by Goldar (1986), Ahluwalia (1991), Balkrishnan and Pushpangadam (1994), Goldar (2004), and Goldar (2015) are employed in this work. Using this procedure, PIM calculates capital;

$$GFCF_{k,t} = (1-\beta_k) GFCF_{k,t-1} + I_t$$

Where GFCF stands for real gross fixed capital formation, I_t is the actual investment in asset k , and k is the anticipated constant rate of depreciation over time. By using WPI for machinery and machine tools at 2011-12 values, GFCF and real investment are deflated.

Labour: Total number of working individuals represents the input of labor. Besides the total employees, it also includes the working proprietors' unpaid family workers and co-operates family workers. This has been done keeping in mind the fact that family staffs which are involved in supervision or management have considerable bearing on a firm's productivity.

Energy: The ASI unit level data are used to determine fuel usage, which is then further deflated by WPI fuel & power with base price 2011-12.

Material Consumed: It is the total value that has been delivered after taking into account the

contributory value of raw materials, chemicals, materials used in packaging, and stores that have been used as part of the factory. Material value is deflated by weighted WPI of non-food primary articles and minerals with the base price 2011-12.

Table-3: Scale Efficiency (EFFCH), Technical Efficiency (TECHCH) and Total factor Productivity Growth (TFPG)

Pre-MFA (1998-99 to 2004-05)				
NIC Code	Sub Sector	EFFCH	TECHCH	TFPG
171	Spinning, Weaving, and Finishing	1.000	1.027	2.700
172	Manufacture of Other Textiles	1.000	1.010	1.000
173	Manufacture of Knitted & Crocheted Fabrics	1.000	0.933	-6.700
181	Manufacture of Wearing Apparels	1.000	0.985	-1.500
182	Dressing and Dyeing of Fur	1.000	0.906	-9.400
Post MFA (2005-06 to 2019-20)				
171	Spinning, Weaving, and Finishing	1.000	1.041	4.100
172	Manufacture of Other Textiles	1.000	1.065	6.500
173	Manufacture of Knitted & Crocheted Fabrics	1.000	1.024	2.400
181	Manufacture of Wearing Apparels	1.000	1.020	2.000
182	Dressing and Dyeing of Fur	1.000	1.037	3.700

Source: Author's Estimation from ASI Unit-level Data.

The Indian textile industry has a provision that meant reservation for small-scale industries in this regard, which in turn was done to protect employment opportunities. However, limitations imposed because of policy did impact the level of investment in improving the standards of plants and machinery. This impeded updating of technology and thus hampered in achievement scale of economies which in turn affected the capacity for increasing productivity. Indian government at that time framed a committee of experts in 1998, to re-evaluate policies on textiles. The committee suggested measures like 'reservation', upgradation, and introduction of automotive mechanisms as well as scientific mechanisms to enhance the productivity of clothing which would eventually lead to the expansion of the industry of textile. The government of India de-reserved the industry of garment in 2001, one more step on January 1, 2005, was taken for the removal of multi-fiber agreement restrictions on textiles. So, it was really obvious that the industry would face a lot of competition from global and domestic firms. Various studies claim that the competitiveness of the textile industry of India is not up to the global standard in terms of productivity. The level of productivity accomplished by firms operating in the Indian textile sector has been lower than that of Western countries (Uchikawa, 1999). Some studies have focused on the productivity of certain factors of production to assess the productivity of Indian readymade garment industries. Some studies have looked at the aspect of technical efficiency at the level of firms, and Stochastic Frontier Analysis has been applied to the estimation of the same firms operating in the textile sector in India (Bhandari and Ray, 2012).

The analysis of the estimation of productivity change, technical change, and efficiency change in the sub-sectors of the textile industry is presented in Table-3. The result suggested that the average growth of total factor productivity was positive and higher in post-MFA compared to pre MFA era. Moreover, the contribution of all factors to the textile sector is crucial to achieving productivity growth, in which the growth of the industries is the contribution of both technical efficiency and little contribution of catching up effect. Moreover, the TFP growth of the textile sector was negative in pre-MFA and

became positive in post-MFA.

6. CONCLUSION

It can be seen that the removal of MFA has not only increased competition among nations that export textiles and garments, but has also resulted in increased production in developing countries such as India, China, Bangladesh, and so on. Technological advancements have improved the efficiency of enterprises in the Indian readymade garment industry, resulting in increased productivity. The scale of operations has improved, resulting in increased output and, eventually, increased productivity. Hashim (2004) stated the reason for this is that when the scale of an operation grows, the unit cost of production decreases, which has a direct impact on the productivity of India's textile sector. The research above highlights the fact that, despite the Indian textile industry's productivity performance in the post-MFA period showing some increase, the outcome is not as encouraging as anticipated. Numerous obstacles prevent the Indian textile industry from increasing its production. To make significant progress in this area, timely policy actions are necessary.

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SCOPE OF REVIVING THE CONDITION OF SKILLED WORKFORCE OF SILK INDUSTRY OF BHAGALPUR, HIT BY COVID-19 BY REPLICATING “NAVPARAVARTAN CHANPATIA” MODEL.

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ABSTRACT

Covid-19 certainly proved to be disastrous for the whole world. It has harmed the whole world at every level, whether it is at the level of social, economic, health and security. “**The silk industries of Bhagalpur**” were also hurt socially and economically by this global pandemic. It not only disrupted the life of the people but also destroyed the livelihood of all the skilled workers. As, global epidemic took the whole world in its grip without informing and warning, in the same way the skilled workers associated with the silk industry of Bhagalpur could not escape from it. This economic loss has dealt a sudden blow to the flourishing silk industry here and it still seems to be unable to recover the loss. In order to deal with this adverse situation, during the Covid-19 lockdown, in **West Champaran**, the then **District Magistrate “Mr. Kundan Kumar”** imbibes the “**Nav Parvartan Chanpatia**” model, it made possible and compensated the loss caused by this epidemic. “**Nav Parvartan Chanpatia Model**” has done the work of finding opportunities in disaster and has done a very noble work of bringing back happiness to skilled laborers by creating earning opportunities at their native place only. Skilled workers who returned during the Covid-19 lockdown has got employment facilities in their hometown, a systematic and large production area was planned in “Chanpatia” block itself and huge production houses of different manufacturing sectors were set up out here, it worked to set a record on the global stage. Therefore, if the skilled workers associated with the silk industry of Bhagalpur can also get benefited by adopting this model, it will certainly prove to be a boon for the silk industry and skilled workers here, who are on the edge of extinction.

Keywords- Silk industry, Skilled workforce, Covid-19, Lockdown, pandemic, Navparavartan Chanpatia Model, Bhagalpur, West- Champaran, Udyami Mitra Mandal, Opportunities in adversity, e.t.c.

INTRODUCTION

Silk industry of Bhagalpur has an immense scope of growing as leading manufacturers of silk fabrics. Once, it is used to be the profitable sector of Bihar and across all over India. It had seen a golden phase of success and certainly provided immense working environment and employability to the locals. But during the course of time it has started losing its reputation of being best in their business. New production centres of Ahmedabad and Bangaluru are taking its business by inducing new innovation

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and technology in silk manufacturing field. Covid-19 pandemic and sudden unplanned lockdown has put ice on cake by taking away their livelihood and social securities. Now, they are on edge of extinction and clearly seems to be vanished in books of history. They urgently need a survival backup from every possible scopes available. Government should take extra attention and care to revive this dying industry. The skilled and associated workforce of this industry are having no scope of revival and certainly losing all their hopes of turning back to the golden period as it used to be in the past. They need proper infrastructure and support to again build their lost legacy.

So, to revive their fate and future “**Navparavartan Chanpatia**” model of **West Champaran** can be replicated by the silk industry of Bhagalpur. This is the only way, which can bring back smile on the faces of skilled workforce and silk industry of Bhagalpur. “Navparavartan Chanpatia” model in short, an initiative taken by the district administration of West Champaran headed by then District Magistrate Mr. Kundan Kumar and supported by entire team of district administration to retain back the returnee migrants of West Champaran by creating opportunities at their native place only. Rigorous planning, skill mapping, allocation of land, arrangement of finance, building production houses, providing space, inducing new technologies and high octane machines, creating working environment by appointment of “Udyami Mitra Mandals”, advertisement, arrangement of markets for selling final products and giving securities to the skilled workers are the key features of this model.

This holistic approach has created opportunities in adversity, and skilled returnee migrants during Covid- 19 lockdown has got livelihood in their native place only. The earning opportunities are much satisfactory as compare to the wages they used to get in the past in other states of India.

So, this model can be implemented in Bhagalpur district and there could be a revival done in order to uplift the pathetic condition of the skilled craftsmen of Bhagalpur silk industry.

OBJECTIVE OF STUDY

- Highlighting the worsening condition of the skilled craftsmen of Bhagalpur silk industry aroused due to Covid-19 lockdown.
- Throwing light on the scopes and opportunities of the upliftment of the craftsmen of silk industry of Bhagalpur.
- Reviewing the “Navparatan Chanpatia” model of West Champaran district of Bihar and its importance in the reviving the condition of Bhagalpur Silk industry.
- Pulling the Governments attraction to uplift this pathetic situation and to provide concrete and sustainable remedy for proper growth of Silk industry of Bhagalpur.

REVIEW OF LITERATURE

- Abdullah and Loh (2022) conducted a comprehensive review of literature to examine employee retention strategies in the construction industry. They identified six key themes that emerged from the literature, including leadership and management practices, compensation and benefits, work-life balance, training and development, job satisfaction, and organizational culture. The authors concluded that the implementation of effective employee retention strategies in the construction industry can lead to increased productivity and organizational performance.
- Adeyemi, Adeyemo, and Oluwole (2021) conducted a literature review to explore the factors that influence employee retention in the hospitality industry. The authors identified several factors that impact employee retention, such as organizational culture, compensation and

benefits, job satisfaction, work-life balance, and career development opportunities. The review also highlighted the importance of effective communication, leadership, and management practices in promoting employee retention in the hospitality industry.

- Garcia and Espino (2021) conducted a literature review to investigate the role of human resource management in employee retention. The authors identified five key factors that impact employee retention, including recruitment and selection, compensation and benefits, training and development, work-life balance, and organizational culture. The review highlighted the importance of developing effective human resource management strategies to attract and retain talented employees.
- Thakur and Mehta (2021) conducted a literature review to examine employee retention in the context of Indian organizations. The authors identified several factors that influence employee retention, including compensation and benefits, job satisfaction, work-life balance, organizational culture, and leadership and management practices. The review also highlighted the importance of developing employee retention strategies that are aligned with the organizational goals and objectives.
- Yildirim and Yildirim (2021) conducted a literature review to explore employee retention in the public sector. The authors identified several factors that impact employee retention in the public sector, such as compensation and benefits, job security, work-life balance, organizational culture, and leadership and management practices. The review highlighted the importance of developing effective employee retention strategies to overcome the challenges faced by public sector organizations in attracting and retaining talented employees.

THE MAIN STUDY

Bhagalpur, also known as the Silk City, is an economically and historically important district of Bihar. It is located about 30 miles south-east of Patna. The river Ganga passes through this city. It has many modes of communication for trade which are connected by roads, railways and waterways. Rice, wheat, maize, oilseeds, barley and sugar are the main crops produced here. Bhagalpur is mainly known for silk production. Sericulture Institute and Agricultural Research Center are also present in Bhagalpur. It was once considered the largest trading center of eastern India. The city is known for its unique silk fabric called "tussar". Silk weaving is an old tradition of the city. The silk fabrics here are famous in both the domestic and international markets. It ranks second in the country after Karnataka in terms of production and export of silk fabrics. That is why it is named as the silk city because of the Bhagalpuri silk produced from here and it is widely popular across the country.

The history of silk weavers in Bhagalpur is more than a hundred years old. The silk industry of Bhagalpur is about 200 years old. It has crossed many generations. There are more than 25000 looms and 35000 handloom weavers present in the city. The total trade of the city is about more than 100 crores per year, which covers 50% domestic market and 50% export market. About 100000 human labor force is engaged in this industry for separating the threads from the cocoons and spinning the threads for weaving into the final product called silk or "tussar" cloth.

The silk produced here is exported to Europe, America, West Asia and Japan. Silk has gained immense popularity in the fashion industries across the world and has become the main attraction of ramp shows. Silk is also being used in home furnishing.

The silk industry of Bhagalpur produces 20 lakh meters of silk every year and in 2007 it made a profit

of Rs 3500 crores but in 2009 the silk exports came down to Rs 2000 crores. , money and many other facilities have lost their market to Bangalore and Ahmedabad. The subsidy given by the government is also not enough to improve their working conditions. The craftsmen here are average people living below the poverty line. They make luxurious and luxurious clothes for high and elite class citizens, but they themselves live in darkness and uncertainty due to lack of proper facilities. Due to lack of security the banks do not give them adequate loans and hence they are forced to take loans from the unorganized sectors at a high interest rate of around 5% per month. They face repayment problems and hence lose all hope and apparently give up silk weaving. The silk industry in Bhagalpur is in great danger and somewhere in the future we may lose this age old traditional work of silk weaving. This is leading to outsourcing of skilled workers from the district and only unskilled workers are being left behind which is gradually weakening this historical tradition.

The textile and apparel sector in India is in a state of demise that needs to be noticed. The industry, generally considered the second largest employment generator after agriculture, employs more than 45 million people directly and over 60 million indirectly within the country. The COVID-19 lockdown has had a significantly adverse impact on the silk industry in Bhagalpur, with weavers struggling for survival.

Bhagalpur, once a leading silk fabric manufacturing centre, is currently losing its market share to recently newer centers such as Ahmedabad and Bangalore. Craftsmen are in trouble due to lack of government support and increasing competition.

Over 100-year-old silk weaving culture of Bhagalpur, which earned the district the nickname "Silk City of Bihar", is slowly disappearing. On the southern bank of the Ganges, the once flourishing trade is now on the edge of "extinction", leaving the survival of its craftsmen in uncertainty.

Because of two sudden unplanned lockdowns imposed to control the spread of COVID-19, political apathy, mismanagement and government schemes in the name of optics, the traditional source of earning livelihood of over 2 lakh people – who are engaged in spinning cloth – Now it has come down to about Rs 100 crore.

Weaving in Bhagalpur has historically been limited to Scheduled Castes among Hindus, such as the Tantis, and Other Backward Classes (OBCs) among Muslims, such as the Ansaris. Silk weaving has always been a domestic activity in which all the members of the family are involved. Weavers are not only facing financial crisis; New generations are turning away from what they consider to be labor-intensive and non-profitable occupations.

Silk sarees, stoles, scarves, dupattas, blankets and clothing items are made in Bhagalpur.

With the changing span of time, this artwork is suppressed up in a series of social and government fiascos, which reduced the necessity and appeal of Bhagalpuri's work. After a relatively long absence, the art form has returned with a bang, fueled by a desire to make it big once again in the apparel industry.

Government as well as non-governmental organizations and businesses took the needed steps to bring back this "lost" artwork to the forefront of a competitive market while preserving its powerful quality and worldwide demand. Today this craft has influenced many expert weavers and craftsmen of all ages.

Silk is considered a luxury fabric and in today's economy no one wants to spend that much money on it. Most of their business comes from firms based in Europe or the US. But there are no orders right now because logistics is a difficulty, and business is suffering.

Every window and entrance in the by lanes of Nathnagar, big enough for a car to pass through, opens to a loom that still sits proudly in the front room. Those looms are no longer existing.

Weavers were already grappling with problems like high yarn prices and lack of availability of dye in the local market. However, the informal sector was still functioning. When the lockdown was imposed last year, around 25,000 powerlooms and 4,000 handlooms in Bhagalpur went out of business, leaving the fortunes of thousands of families in dire straits.

This craft has traditionally competed with Bangalore and Mysore silks. On the other hand, the quality and sophistication of this fabric stands out. This fabric is also beneficial from the point of view of the environment, because the number of silkworms in it is not high.

Bhagalpuri silk is the fabric of choice at Wills India Fashion Week in Delhi and Singapore Fashion Week. Traders are not able to export finished products due to logistics issues. With more than 90% of the loom owners out of work, the business is on the verge of collapse. The average monthly income from each loom has come down from Rs 5,500-6,000 to Rs 2,500-3,000. A back order for dupattas made by a Guernsey-based knitting firm has not been delivered for more than two months, the owner says.

Weavers in Bhagalpur are facing severe capital crisis. Increased competition and lack of support from the government have put the craftsmen in uncertainty. The weavers claim that they work for 18 hours on each product but earn a meagre income, not enough for the survival of their families and even forget about a decent education for their children.

The weavers of Bihar's Bhagalpur have called upon the government to launch various schemes and programs for marketing of handloom products. These include smooth reach to raw materials at subsidized prices, easy credit flow at low interest rates and provision of better health facilities and life insurance under the government welfare schemes. It is also suggested incorporation of new and contemporary designs through infrastructure development, brand building, training and skill up gradation, design interventions as well as product diversification.

It is said that to solve the problem of capital, there is a need to pay higher wages to the weavers. The state government's Minimum Wages Act, announced on October 1, 2018, states that unskilled and semi-skilled weavers should get Rs 257 per day (Rs 6,682 per month) and Rs 268 per day (Rs 6,968 per month), respectively. Skilled, highly skilled workforce should be given Rs 325 per day (Rs 8,450 per month) and Rs 396 per day (Rs 10,296 per month) as per law.

PROBLEMS RELATED TO SILK INDUSTRY OF BHAGALPUR

- The crunch of capital is forcing the weavers to live in a pitiable and miserable condition and they are not even able to educate their children.
- They don't have a union to put their problems on the right platform.
- The job opportunities are very less and they do not get regular work and salary throughout the year.
- Excessive illiteracy is affecting their standard of living badly.
- Due to the interference of middlemen, government schemes and facilities are not reaching them at the right time.
- Most of the companies are giving more emphasis on power loom and hence handloom silk weavers are losing their market.
- SHGs and NGOs are also not giving their best to improve their poor condition.
- Unskilled labor is putting more pressure on this industry and resulting in disguised

unemployment.

- Power cut and electricity condition is not so good and also proper subsidy is not being provided to them by the government.
- Covid-19 lockdown has made the situation more fatal and the working opportunities has gone down so much that it badly affected the employment and production of final product.
- Government is also very reluctant to revive the condition of the skilled craftsmen of silk industry of Bhagalpur.
- Banks shows no interest giving loans to them, and hence they are forced to take loans from unorganized sectors and money lenders at very high rate of interest, and this leads to the extreme poverty.

“NAVPARAVARTAN” STARTUP ZONE CHANPATIA

Due to sudden unplanned lockdown imposed during Covid-19 pandemic, skilled migrants were forced to return to their native places. They came back here by various means of transport and many came on foot. They were having no jobs and money left with them and future was very dark as all the employment opportunities were lost. But when they returned to Chanpatia of West Champaran, the district administration were having different approach to solve the existing problem aroused due to the pandemic. Then District Magistrate of West Champaran Mr. Kundan Kumar along with his entire team innovated “Navparavartan Chanpatia Model”, which turned the adversity into opportunity.

The innovation “Navparavartan” startup zone Chanpatia was a transformational and innovative step taken by District Magistrate, Mr Kundan Kumar, realising the need of this model for changing the lives of poor migrants. The basic idea of this model is to classify the migrants according to their inherited skill gained by them in the past. A man to man marking was done in order to have the knowledge of their skills, which is better known as Skill Mapping. So, every skilled workers have been identified by the district administration team as per the skills of returnees. Now the next step was to create opportunities for them according to their skills within the Chanpatia block itself. This required a production model using latest technology for generating employment within the present ecosystem to achieve the goal of “Aatmanirbhar Bharat”.

Now they found that maximum migrants were highly skilled in the field of textile business. So the District administration had decided to set up the whole system of textile industry within the Chanpatia block with the name “Navparavartan” startup zone Chanpatia. This model helped the migrants a lot and created immense job opportunities for them within their native place itself. Everything from providing raw materials to production, process and selling final products to the different market places within the state of country and abroad was monitored from here only. The initiative was highly inspired by the words of our respected Prime Minister of India, Sri Narendra Modi, “Jaan bhi Jahan bhi”. A very important step within this model was to form “Udyami Mitra Mandals” was a great enabler of this model. This group was formed when migrants were in quarantine period. Udaymi Mitra Mandals were called to come up with the detailed plans of setting up of production units.

The main features of step taken under this project are as follows-

- Udyami Mitra Mandal.
- SPOC Single point of contact.
- Provision of instant space of 20 equal acres of land for setting up the ware houses and start-up zone by following plug and play model.

- Allocation of production unit.
- Creating design studio, QA facility, brand design.
- Importing latest machines and tweaking the existing schemes.

The basic idea was here to provide employment opportunities to the reverse migrants by tapping their skills and potentials, creating employment opportunities for them closer at their home, is the main highlight of this project.

Initially banks were not taking interest and were reluctant to provide loans for this great cause, but weekly rigorous meeting was done by district administration with the bank officials and ultimately convinced them to provide loans to the migrants under PMEGP- (Prime Minister Employment Generation Program) and within fortnight loans were sanctioned. Latest machines like 40 ft long computer added embroidery machines, laser operated beading machine, CAD operated knitting machine etc, were imported to create it as a bulk production hub.

OUTCOME

This project has created immense opportunities for the migrants who were skilled in their respective fields. Now they are working in their native place, outsourcing of skilled workers has almost come to an end. They have become self confident and self reliant and enjoying their new life with their families in their native place.

There are some positive outcomes have been observed which are as follows-

- This start-up zone houses has created 57 returnees production unit.
- About 400 machines running daily for the production.
- Items worth rs 15 crore have been sold in various part of India including Surat, Ludhiana and even exported to abroad, leading to achieve the goal of Aatmanirbhar Bharat.
- Created thousands of direct and indirect employment in home district.
- Hundreds of migrant have started up their units outside the start-up zone.
- About 141 udyamis have applied for a space allocation for starting their own production unit.
- The start-up zone has become host of different offerings. From shirts, lowers, tracksuits, jackets, suits, lehenga, sarees, footwears, sanitary pads, steel utensils and cricket bats etc.
- Sold about 1,35,000 trousers 1,0,1000 leggings 63000 tracksuits 8 lakh sanitary pads and 13 lakh masks etc.
- Returnees have now become entrepreneurs from labourers.
- Exported 70,000 embroidered Kashmiri shawls to Jammu and Kashmir, Banarasi sarees to Varanasi, tracksuits to Ladakh and jackets to Ludhiana, Nepal and Spain.

AWARDS

The West Champaran district has been awarded Prime Minister award for excellence in public administration 2021, under the category of innovative districts for its initiative “Navparavartan” startup zone “Chanpatia”. Prime Minister Shri Narendra Modi has awarded District Magistrate West Champaran, Mr Kundan Kumar in this category.

Suggestion to revive the condition of skilled workforce of Silk industry of Bhagalpur and The silk industry itself-

- Unskilled weavers should be given proper infrastructure to make them skilled through government programs like KYP (Kaushal Yuva Programme).

- They should arrange capital through bank loan and if their condition is not good then loan should be waived off.
- Subsidy should be provided on loan and electricity bills.
- Proper educational centers should be opened to educate them and training should be provided to them whenever required and this skill should also be taught at school level as a vocational course.
- Proper counseling centers should be run by the government at district and block level so that a solid channel can be provided to the produced goods and the desired goods can be transported to the right market place.
- SHGs and NGOs should step forward to help them and give them proper arrangements.
- Steps taken under “Navparavartan Chanpatia” model needs to be strictly followed which includes-Rigorous planning, skill mapping, allocation of land, arrangement of finance, building production houses, providing space, inducing new technologies and high octane machines, creating working environment by appointment of “Udyami Mitra Mandals”, advertisement, arrangement of markets for selling final products and giving securities to the skilled workers

CONCLUSION

So, from the above study it is clear that if Bhagalpur silk industry needs to revive its condition then it is the will power and strong mindset are needed to turn the table. The condition and difficulties were same for Bhagalpur Silk industry and Chanpatia Block of West Champaran, but one showed courage and other put all their weapons on the ground. Here “Navparavartan Chanpatia” model stood a winner which turned adversity into opportunity.

The model “Navparavartan” startup zone Chanpatia has brought smiles on the faces of reverse migrant workers who were forced to return to their native place during covid-19 lock down, who were facing unemployment and problem of livelihood. The returnee migrants to Chanpatia during lockdown came back with no jobs, no money, uncertainty, no hope and no future but District Magistrate, Mr. Kundan Kumar was having different approach of seeing this huge problem. He along with his entire team of district administration changed the whole problems to immense work opportunities. The skilled migrants were given new world of thinking, creating and doing innovation in the field of given employment opportunities. They came back here empty handed but now they have huge opportunities in their hands. From workers they turned to owners. Their skills have been justified by the district administration of West Champaran creating world class products, by using latest technology has become the regular routine of Chanpatia. They are being recognised worldwide now. Certainly from darkness they came back to the light of hope and immense opportunities. All together in the right sense, we can say that adversity in this case has become opportunity.

Hence, if Bhagalpur silk industry could replicate the mentioned model then it will definitely bring back the smiles on skilled workforce of Bhagalpur Silk Industry.

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RAMIFICATIONS OF CLIMATE CHANGE ON AGRICULTURE OF BIHAR

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ABSTRACT

It is evident that agriculture is one of the dominant sector in Bihar and it the primary source of livelihood for most of its population. It is also clear that Agriculture sector proved a silver lining registering a positive growth rate in the CoViD times. The present paper aims to analyze different approaches used for estimation and predictions of climate change impact on various crops for different time periods, geographies, crop seasons and climatic conditions majorly in terms of yield loss. Further, it analyses how different management strategies such as crop diversification, irrigation, stress-tolerant seeds, agronomic management, crop insurance, social safety nets, etc reduces the risk and sensitivity to climate change. Further, it has been indentified that there is a number of research gaps need to be addressed in light of the predicted escalated change in the climate in future. Way forward for designing and implementing effective policies in making agriculture resilient to climate change has been discussed too.

Keywords: Climate Change, Irrigation, crop, Research Gap.

JEL Classification:

INTRODUCTION

Climate change refers to “long-term shifts in temperatures and weather patterns. These shifts may be natural, such as through variations in the solar cycle. Human actions are causing Earth to warm by increasing the amount of carbon dioxide in the atmosphere”.

It is a global scenario and presently, every country of the world is facing the heat of climate change. Due to this season phenomenon have changed, monsoon spells have been irregular, and incidence of natural calamity have increased, pollution level is all time high. The world and also India is witnessing ramifications of Climate change. Bihar is no immune to this.

Ongoing, in the paper, the impact of climate change on the Agriculture in Bihar will be discussed at length. Bihar is one of the state the of India occupying a total geographical area of 96.30 lakh ha. It is a land locked area surrounded by Nepal in the north, west Bengal in the east, Jharkhand in the south, & UP in the west. The state is blessed with large fertile alluvial land, a very dense network of river & drainage system, a rich biodiversity land & a strong human resource potential. The climate of Bihar is semi-humid & it is suitable for the growth of large number of plants. Bihar is 3rd largest producer of vegetable 4th largest producer of fruits & largest producer of litchi, guava, makhana. The soil of Bihar is very fertile as 2/3 rd area comes under different alluvial plain. Some soil is mountainous soil found in the foot hills of Himalayas. Some are laterite soil found in the southern Bihar.

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There are following 4 (four) agro climatic zones in Bihar.

Table – 1

Sl. No.	Zone	Nomenclature
(i)	Zone 1	North alluvial plain
(ii)	Zone 2	North east alluvial plain
(iii)	Zone 3	South east alluvial plain
(iv)	Zone 4	South west alluvial plain

Bihar has a total geographical area of about 93.60 lakh hectare, out of which only 56.03 lakh hectares is the net cultivated area and gross cultivated area being 79.46 lakh hectares. Principal food crops are paddy, wheat, maize and pulses. Main cash crops are sugarcane, potato, tobacco, oilseeds, onion, chilies' and jute and a total of 76% of population depend directly or indirectly on Agriculture.

Climate is changing and it is affecting our life and Bihar is no immune to this. Climate change may threaten sustainable development in Bihar given the potential vulnerability associated with high population density, poverty, and limited resources for adaptation. Climate change is, thereby, set to cause huge economic, social, and environmental damage across the State, resulting in to compromising growth potential and poverty-reduction efforts [Ahmed, M.; et.al.]. Agriculture is extremely vulnerable as any change in climate influences crop growth and yield, hydrologic balances, supplies of inputs and other management practices [Knox, J.; et.al.]

Rise in temperatures shorten crop cycles by inducing early flowering and shortening the grain-filling period, thereby reducing yield per unit area [Chattopadhyay, N]. Future climatic variability will also lead to more frequent extremes of weather in the form of erratic monsoons and increased frequency and intensity of drought and flooding [Randhawa, R.K. et.al.], thereby affecting both rainfed and irrigated productions systems. Although climate change has occurred on a global scale, its impacts often vary from region to region [Trajkovic, S.; et.al.] and even from location to location [Hadgu, G.; et.al.].

Bihar is considered as climate-sensitive states in India owing to its geographical setting, hydro-meteorological uncertainties, dense rural population and high level of poverty [GOB State Action Plan on Climate Change]. Agriculture contributes 21.3% of Bihar's GDP and will continue to play an important role in the economic development of the state and as a prime source of livelihood for about 90% of the population [GOB State Action Plan on Climate Change]. The State Government of Bihar acknowledges that climate change is one of the major challenges of agriculture in the state, and its overall strategy is to transform agriculture and its allied sectors into climate-resilient and vibrant production systems while developing their full potential and ensuring sustained food and nutritional security.

The classified impacts on crops, water, livestock, fisheries and pest and diseases are presented below (Aggarwal et al. 2009):

CROPS

1. Increase in ambient CO₂ is beneficial since this leads to increased photosynthesis in several crops, especially crops with C₃ mechanism of photosynthesis such as wheat and rice, and decreased evaporative losses. Despite this, the yields of major cereals crops especially like wheat is likely to be reduced due to decrease in crop growth duration, increased respiration, and /or reduction in rainfall/irrigation water supplies due to rise in atmospheric temperature

2. Enhanced frequency and duration of extreme weather events such as flood, drought, cyclone and heat wave; that adversely affect agricultural productivity.

3. Reduction in yield in the rainfed areas due to increased crop water demand and changes in rainfall pattern during monsoon season.
4. Declined quality of fruits, vegetables, tea, coffee, aromatic, and medicinal plants.
5. Alteration of agricultural pests and diseases because of more pathogen and vector development, rapid pathogen transmission and increased host susceptibility.
6. Threatened agricultural biodiversity by rainfall uncertainty and temperature increase, sea level rise, and increased frequency and severity of drought, cyclones and floods.
7. Contrary to all the above negative impacts, predictions have been made for decreased cold waves and frost events in future due to the atmospheric temperature rise, which would lead to a decreased probability of yield loss associated with frost damage in northern India in crops such as mustard and vegetables.

WATER

1. Increased irrigation demands with increased temperature and higher evapo-transpiration. This may also result in lowering groundwater table at some places.
2. Melting of glaciers in the Himalayas may lead to increased water availability in the Ganges and its tributaries in the short run but in the long run the availability of water would decrease considerably.
3. A significant increase in runoff is projected in the wet season that may lead to increase in frequency and duration of floods and also soil erosion. However, the excess water can be harvested for future use by expanding storage infrastructure. The water balance in different parts of India is predicted to be disturbed and the quality of groundwater along the coastal track will be more affected due to intrusion of sea water.

SOIL

1. Reduced quantity and quality of organic matter content, which is already quite low in Indian soil.
2. Under elevated CO₂ concentration, crop residues have higher C: N ratio, which may reduce their rate of decomposition and nutrient supply.
3. Increase of soil temperature will increase N mineralization but its availability may decrease due to increased gaseous losses through processes such as volatilization and denitrification.
4. Change in rainfall volume and frequency and wind intensity may alter the severity, frequency and extent of soil erosion.
5. Rise in sea level may lead to salt-water ingression in the coastal lands turning them less suitable for conventional agriculture.

LIVESTOCK

1. Climate change has pronounced effect on feed production and nutrition of livestock. Increased temperature results in enhanced lignifications of plant tissues and reduced digestibility. Increased water scarcity would also decrease food and fodder production.
2. In cooler areas, climate change has major impact on vector-borne diseases of livestock by the expansion of vector population. Changes in rainfall pattern may also influence expansion of vectors during wetter years, leading to large outbreaks of disease.
3. Global warming would increase water, shelter, and energy requirement of livestock for meeting projected milk demand.
4. Climate change is likely to aggravate the heat stress in dairy animals, adversely affecting their reproductive performance.

FISHERY

1. Increasing sea and river water temperature is likely to affect fish breeding, migration, and harvest.

2. Impact of increased temperature and tropical cyclonic activity would affect the capture, production and marketing costs of the marine fish.
3. Coral bleaching is likely to increase due to higher sea surface temperature.

INSECTS AND DISEASES

1. Extension of geographical range of insect-pests and pathogens
2. Changes in population growth rates of pathogens and insect-pests
3. Changes in relative abundance and effectiveness of bio control agents
4. Changes in pathogen/insect-pest × host × environment interactions, and loss of resistance in cultivars containing temperature-sensitive genes
5. Emergence of new diseases/pest problems and increased risk of invasion by migrant diseases and pests
6. Reduced efficacy of different components of disease and insect-pest management.

CONCLUSION

Climate change effects on agriculture are likely to be ubiquitous, both in terms of direct and indirect impacts. Maintaining plant health across the planet, in turn, is a key requirement for climate change mitigation, as well as the conservation of biodiversity and the provision of ecosystem services under global change. Information gathered so far has been fragmented and a comprehensive analysis of climate change impacts on agriculture is required. Experimental research on a diverse range of crop and biotic and abiotic systems is necessary to improve comprehension of climate change impacts on agriculture. To maintain ecosystem health and services under variable, unpredictable or unknown conditions, we need more resilient systems, decentralization, participatory research and breeding networks. At the same time, increased involvement of the many stakeholders and scientists from outside plant pathology shows the importance of considering trade-offs with other objectives. Increasing diversity would be in favour of a land-sharing approach, but may be relevant also to land-sparing scenarios (e.g. at the margin of fields), depending on the spatial and temporal scale and the type of diversity (genetic, species, species turnover, ecosystem) considered.

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AN INCLUSIVE AND RESILIENT CREATIVE ECONOMY FOR SUSTAINABLE DEVELOPMENT

Siddharth Singh*

"The creative economy is not only one of the most rapidly growing sectors of the world economy, but also a highly transformative one in terms of income-generation, job creation and export earnings...when the creative sector becomes part of an overall development and growth strategy, it can contribute to the revitalization of the national economy where hybrid and dynamic economic and cultural exchanges occur and innovation is nurtured. But that is not all. Investing in culture and the creative sector as a driver of social development can also lead to results that contribute to the overall wellbeing of communities, individual self-esteem and quality of life, dialogue and cohesion"

-UN Report on Creative Economy 2013

ABSTRACT

The intersection of creative economy and sustainable development has emerged as a potent force shaping the future of global socio-economic landscapes. This paper delves into the symbiotic relationship between these two dynamic concepts, exploring how their integration can pave the way for inclusive growth, environmental stewardship, and resilient communities.

Creative economy, characterized by the generation of value through the creation, has gained prominence as a transformative force in the contemporary world. This economic paradigm encompasses a wide array of industries, including arts, design, media, technology, and innovation. Recognizing the inherent potential of creativity as a driver of economic growth, nations worldwide are increasingly leveraging their creative sectors to diversify and enhance their economies.

In parallel, the imperative of sustainable development has become a central focus in addressing the global challenges of climate change, resource depletion, and social inequality. Sustainable development seeks to harmonize economic, social, and environmental goals, aiming to meet the needs of the present without compromising the ability of future generations to meet their own needs. This paper explores the synergies between creative economy and sustainable development, highlighting their collective potential to foster positive change.

The creative economy, with its emphasis on innovation and human ingenuity, can contribute significantly to sustainable development goals. Innovation in design, technology, and

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cultural expression can drive solutions to environmental challenges while simultaneously fostering economic growth. Creative industries not only generate employment but also contribute to community resilience and cultural identity, integral components of sustainable development. The digital realm has empowered creative entrepreneurs, enabling them to reach broader audiences and markets.

Governments, international organizations, and local communities play pivotal roles in creating an enabling environment that nurtures creativity while ensuring that development is ecologically sound and socially inclusive.

Key Words: *Creative economy, sustainable development, Cultural exchanges*

INTRODUCTION

The term "creative economy" typically encompasses various sectors that involve creativity, innovation, and intellectual property, such as arts, culture, design, and technology. The resolution likely emphasizes the potential of the creative economy to contribute not only to economic growth but also to sustainable development, underscoring the interconnectedness of creativity, culture, and economic progress. This recognition suggests a commitment to harnessing the benefits of the creative economy for the greater well-being of societies worldwide. The resolution of the 74th session of the United Nations General Assembly, which designated 2021 as the International Year of Creative Economy for Sustainable Development. This resolution signifies the acknowledgment and confirmation of the growing importance of the creative economy at the global level. By designating a specific year to focus on the creative economy, the UN recognizes its role as a driver for sustainable development. Despite the recognition of the creative economy's importance, the creative economic sectors have faced significant challenges due to the COVID-19 crisis. The impact has been particularly harsh on workers in the informal economy, as highlighted by the International Labour Organization (ILO) in 2021, especially in urban areas, as indicated by the U20 (Urban 20) group in both 2020 and 2021. This suggests that while there is an acknowledgment of the creative economy's value, there are challenges and disparities that need to be addressed, especially in the context of the ongoing global pandemic. The intersection of arts, culture, business, and technology in the creative economy makes it a complex and multifaceted sector that requires attention and support for sustainable development.

REVIEW OF LITERATURE

The Brundtland Report, published by The World Commission on Environment and Development in 1991, marked a pivotal moment in global discourse by emphasizing the concept of sustainable development. Scholars such as BonzaniniBossle et al. (2016), Díaz-García et al. (2015), Schiederig et al. (2012), and Shrivastava et al. (2016) have defined sustainable development as the pursuit of meeting the needs of the present generation without compromising the ability of future generations to meet their own needs. While sustainability has been a focal point in various sectors, it is only recently that the term has been introduced into the realm of Cultural and Creative Industries (CCIs).

The United Nations (UN) General Assembly in 2020 asserted that the creative economy has the potential to contribute significantly to sustainable development across its three dimensions. This includes fostering economic growth, driving innovation, and addressing poverty as outlined in the 2030 Agenda for Sustainable Development. EY's "Building a Better Working World" report (2021) and UNESCO (2007) further elaborate on how CCIs can enhance sustainability by creating ecosystems conducive to social inclusion, gender diversity, youth employment, and the integration of

technological innovation and cultural diversity.

Howkins (2013) introduces the idea that the creative economy is built on innovative ideas rather than the exploitation of finite traditional resources. This perspective suggests that the emphasis on innovation within the creative industries can contribute to sustainable economic development. Harper (2021) argues for the integration of CCIs with other economic sectors, positing that this collaboration can be a potent driver of transformative sustainability.

UNESCO (2021) recommends specific actions to enhance sustainability in CCIs. These actions include investing in creativity for climate change resilience (Gustafsson & Lazzaro, 2021), supporting inclusive cultural participation, promoting creativity for sustainable economic growth, encouraging decent work practices, and advocating for the development of a holistic policy approach. The aim is to position CCIs as active contributors to sustainable development by aligning economic, social, and environmental principles.

The interconnection between the creative economy and sustainable economic development has emerged as a crucial focus in regional policy design and implementation. Recent studies, including those by Falzagic and Skikiewicz (2019) and Nalkamura (2018), emphasize the role of creative industries as essential drivers of sustainable development. While many studies have focused on specific countries, regions, or cities, a common thread runs through these analyses, emphasizing the integral relationship between creativity, cultural industries, sustainability, and urban economic growth.

For instance, Gruia et al. (2019) highlight the critical role of creativity in promoting urban sustainable economic growth. Florea (2015) explores how innovation and creativity can lead to the sustainable development of Romanian cities, while Kirchberg and Kegan (2013) emphasize the transformative role of artists in making Hamburg a creative and sustainable city. Rodrigues and Franco (2019) demonstrate how creative industries contribute to urban, economic, and social sustainability in Portuguese towns, and Streimikiene and Kacerauskas (2020) identify Estonia as a top performer in the creative economy and sustainable development within the Baltic States.

Similarly, Kozina, Istenic, and Komac (2019) present Ljubljana as an exemplary green creative city that integrates environmental values with culture and creativity. Ursic (2016) examines the distribution of creative industries in Ljubljana and their relationship with sustainability, while Ursic and Tamano (2019) discuss the significance of green amenities for small creative actors in Tokyo. Thorsby (2015) suggests that creativity, cultural sustainability, and environmental sustainability align, proposing the "creative economy" as part of development strategies for Pacific Island economies.

As Kozina, Istenic, and Komac (2019) note, green creative environments contribute significantly to sustainable urban and regional development, countering the environmental degradation resulting from rapid urbanization and industrialization in the 20th century. The "green turn" in the 21st century, emphasizing usable, repairable, recyclable, and sustainable goods and services, has become instrumental in promoting urban and regional development.

CREATIVE INDUSTRIES

Creative industries refer to a range of economic activities that are based on individual creativity, skill, and talent, and have the potential to generate wealth and employment through the creation and exploitation of intellectual property. These industries are typically characterized by their focus on producing and distributing creative goods and services. The creative industries span a diverse range of

sectors, and their contributions are recognized not only for their economic impact but also for their cultural and social significance. The definition and categorization of creative industries can vary, but common sectors often included are (but not limited to):

1. **Advertising and Marketing:** The creation and dissemination of promotional content and advertising campaigns.
2. **Architecture:** The design and construction of buildings and structures.
3. **Art and Antiques:** The creation, exhibition, and trade of visual arts, paintings, sculptures, and antiques.
4. **Crafts:** Handmade and artisanal products, including textiles, ceramics, and jewelry.
5. **Design:** Graphic design, industrial design, fashion design, and other creative design fields.
6. **Fashion:** The design, production, and marketing of clothing and accessories.
7. **Film, TV, and Radio:** The creation, production, and distribution of audiovisual content.
8. **Music:** The creation, production, and distribution of musical works and performances.
9. **Publishing:** Book publishing, magazine publishing, and other print and digital media.
10. **Software and Video Games:** The development and distribution of software, video games, and other interactive media.
11. **Performing Arts:** Theatre, dance, opera, and other live performances.
12. **Cultural and Creative Tourism:** Activities that involve cultural and creative experiences, such as cultural heritage tourism and creative events.

The creative industries are often considered drivers of economic growth, innovation, and job creation. They contribute to the overall cultural and social well-being of a society, fostering creativity, expression, and cultural diversity. Policymakers, businesses, and educators increasingly recognize the importance of supporting and investing in creative industries to stimulate economic development and enhance the overall quality of life.

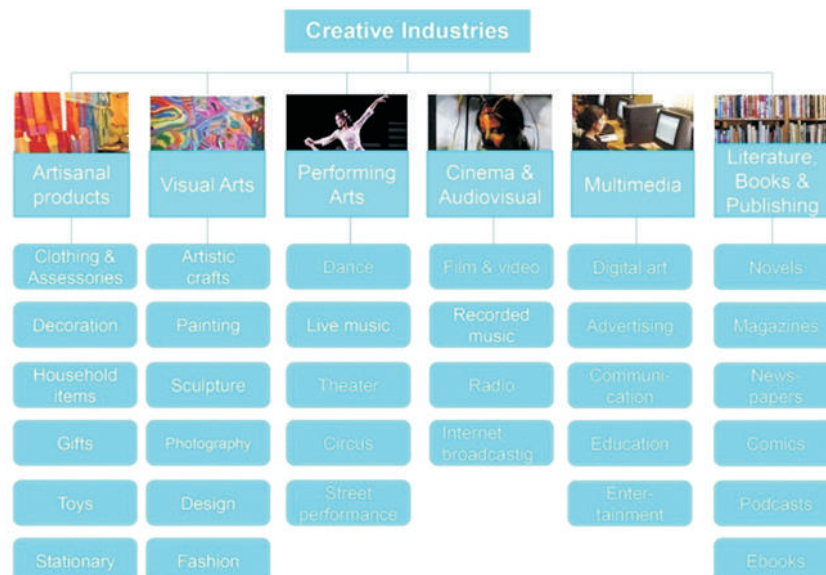


Fig.1 ITC (International Trade Centre) identified sectors and subsectors
Source: ITC, 2008

In many economies, the creative industries are interconnected and contribute to a broader creative ecosystem. The rise of digital technologies has also transformed the landscape of creative industries, enabling new forms of content creation, distribution, and consumption. As a result, the creative economy is continually evolving, presenting new opportunities and challenges for individuals and businesses in these sectors.

OBJECTIVE

1. To analyse the relationship between Creative Economy and Inclusive and Sustainable Development

RESEARCH QUESTION

1. What is the relationship between Creative Economy and Inclusive and Sustainable Development?

METHODOLOGY

The study incorporates both external secondary data sources and theoretical research to build a robust foundation for analysis and exploration. External secondary data sources, including government statistics, published market research reports, and reports from international organizations, academic journals, and publicly accessible databases, serve as the empirical basis for the study. These sources provide a rich reservoir of global and national data, offering insights into various aspects relevant to the research objective.

The utilization of external secondary data sources enhances the study's credibility by drawing on authoritative and well-established repositories of information. The theoretical research component of the study involves a comprehensive exploration of existing literature and theories relevant to the research goal. The researcher seeks to identify, conceptualize, and formulate theoretical frameworks and explanations that align with the subject of the study. This process involves an in-depth review and synthesis of previous research, theories, and scholarly publications. By critically evaluating and integrating existing knowledge, the researcher aims to develop new insights, perspectives, or theoretical contributions that contribute to a deeper understanding of the research topic.

CREATIVE ECONOMY AS AN ENGINE OF DEVELOPMENT

The focus on the creative economy as a driver of economic development has indeed become more pronounced in recent years. Several countries recognize the potential of the creative economy to stimulate growth, create employment opportunities, and foster innovation.

Here are some key reasons why the creative economy is gaining attention in this context:

- **High Growth Potential**
The creative economy, including industries such as design, media, arts, and technology, has shown significant growth potential. It is often characterized by dynamic and innovative sectors that can contribute to economic expansion.
- **Employment of High-Skill, High-Wage Workers**
Creative industries tend to employ a skilled workforce, often with high levels of education and expertise. This can contribute to higher wages and better job opportunities for workers in these sectors.
- **Diversity and Inclusivity**
The creative economy often embraces diversity and inclusivity. It provides opportunities for individuals from various backgrounds, fostering a more inclusive and culturally rich

environment.

- **Spillover Economic Benefits**
Beyond direct economic contributions, the creative economy is recognized for its spillover effects. Innovation in creative industries can lead to efficiency improvements, and the generation of new ideas having ripple effects across various sectors of the economy.
- **Urban Regeneration and Cultural Development**
Investing in the creative economy can contribute to the revitalization of urban areas. Cultural districts, creative hubs, and artistic communities can attract investment, tourism, and contribute to the overall cultural vibrancy of a city.
- **Innovation Catalyst**
Creative industries are often at the forefront of innovation. The dynamic and collaborative nature of these sectors can act as a catalyst for the origination of new ideas, technologies, and business models that have broader applications beyond the creative sector.
- **Export Opportunities**
Creative products and services often have export potential. Countries with strong creative industries can export cultural products, design services, and creative content, contributing to a positive balance of trade.
- **Enhanced Quality of Life**
A thriving creative economy can enhance the quality of life for residents. Access to cultural events, artistic expressions, and creative spaces contributes to a more vibrant and attractive urban environment.
- **Entrepreneurship and Small Business Growth**
Creative industries often provide opportunities for entrepreneurship and the growth of small businesses. This can lead to a more diverse and resilient economic landscape.

The reference to the development of technologies creating new products, services, and revenue streams underscores the dynamic nature of the creative economy. This dynamism positions the creative economy as having significant potential in shaping the future global economy. The integration of technology not only drives innovation but also opens up opportunities for economic growth and sustainability within the creative sectors. Overall, recognizing and supporting the creative economy can be vital for building resilient communities and fostering economic development in the face of global challenges.

CULTURE AND CREATIVE ECONOMY

Creativity and culture play a critical role in the civic response to the COVID-19 crisis globally. It emphasizes that in times of health, social, and economic challenges, creativity and culture contribute significantly to sustaining community resilience and protecting livelihoods. This is particularly relevant when formal systems are under pressure or temporarily cease to function. Moreover, the mention of low barriers to entry in the creative economy suggests that it is an inclusive sector, allowing a wide range of individuals to participate. The term "agile" indicates the sector's ability to adapt quickly to changing circumstances and challenges. This adaptability is crucial in times of crisis, such as the COVID-19 pandemic, where unforeseen disruptions impact various aspects of life.

In the current global context where there are increasing calls to protect local values and scepticism about the benefits of globalization, the creative economy can serve as a unique means to develop international trade based on cultural distinctiveness. This aligns with the idea that the creative

economy has the potential to foster economic growth while preserving and promoting cultural diversity.

The urgency of aligning community, local government, and international initiatives to support and invest in the creative economy is emphasized. This coordinated effort is seen as essential to re-energize this emerging economic sector, which possesses many positive features in terms of sustainability.

The broader impact of the creative economy, extending beyond economic contributions is to encompass social and cultural capital. In South Africa, the cultural and creative industries contributed significantly to the gross domestic product (GDP), reflecting the positive trend before the crisis. In Nigeria, the music industry was experiencing substantial growth, and the film industry, particularly "Nollywood," not only employed a significant number of people but also produced a remarkable number of films annually, surpassing even Hollywood. Similarly, in Kenya, the entertainment and media sector exhibited consistent growth, emphasizing the positive economic impact of the creative economy in various African countries.

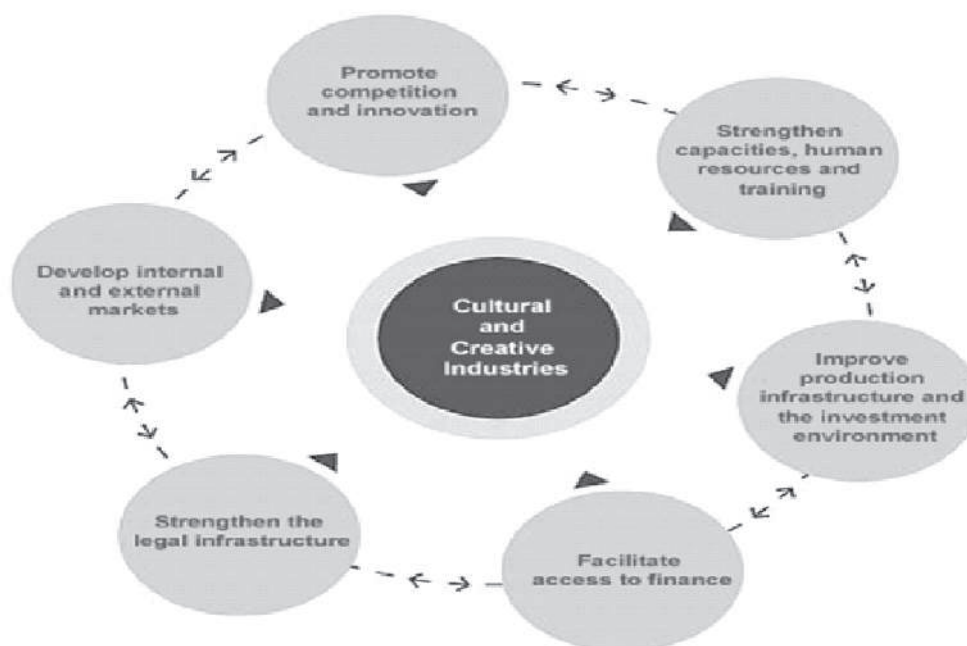


Fig 2. Culture and Creative Industries

Creative Industries and Trade

The global trade in creative goods and services has undergone significant transformations over the past decade, with notable trends and disparities between the two components. According to recent data, the revenues generated by creative services exports far outpace those of creative goods, marking a distinctive shift in the global creative economy landscape.

In the period from 2010 to 2020, the global exports of creative goods experienced an increase from US\$ 419 million to US\$ 524 million. This growth, while notable, is overshadowed by the remarkable

surge in creative services exports, which soared from US\$ 487 billion to nearly US\$ 1.1 trillion during the same timeframe. This substantial increase in creative services exports reflects a growing recognition of the value of intangible and knowledge-based assets in the global marketplace.

One of the key drivers of this decoupling between creative goods and services exports has been the robust expansion of software and research and development services. As digital technologies have become increasingly prevalent, the demand for software solutions and innovative research and development services has surged, contributing significantly to the overall growth of creative services exports.

Another factor contributing to this decoupling is the phenomenon of "dematerialization" within the creative goods sector. Due to the pervasive influence of digitization, certain creative goods are undergoing a transformation, evolving into creative services. This shift is particularly evident in industries where the physical manifestation of goods is diminishing, and the value is increasingly derived from digital content, virtual experiences, and intellectual property.

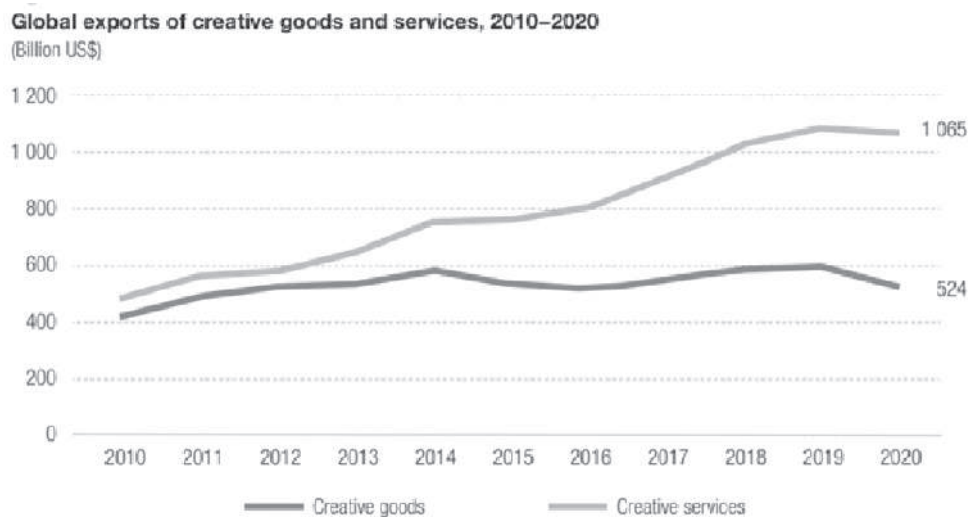


Fig 3. Global exports of Creative Goods and Services

Source: UNCTAD

A notable shift in the global trade dynamics of creative goods has been observed since 2011, with developing economies surpassing developed economies in the export of these goods. Moreover, a concentrated group of economies plays a dominant role in shaping the landscape, collectively contributing to more than two-thirds of the global creative goods exports. The data for 2020 highlights the prominence of a select few economies in this arena.

Since 2011, developing economies have exhibited a robust performance, becoming significant contributors to the export of creative goods. This shift underscores the growing role of emerging markets and developing nations in the global creative economy, indicating their increasing capacity to produce and export creative goods.

The concentration of creative goods exports in a select group of economies highlights the importance of these nations in shaping global trends and preferences in the creative industries. It also emphasizes the need for a nuanced understanding of the dynamics and challenges associated with the global trade

in creative goods, especially as it pertains to the uneven distribution of economic benefits and opportunities.

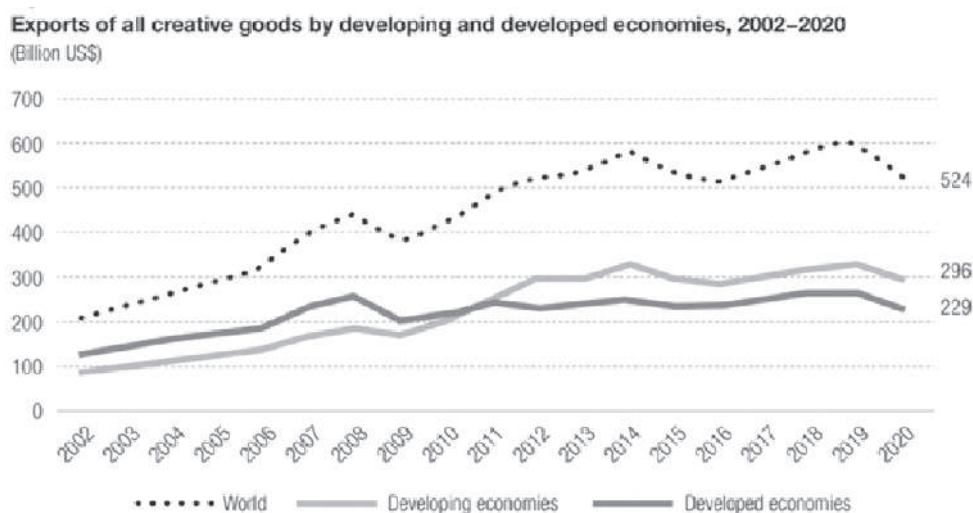


Fig 4. Exports of all Creative Goods by Developing and Developed Economies

Source: UNCTAD based on UN COMTRADE Database

As of 2020, a substantial disparity persists between developed and developing economies in the export of creative services, with developed countries dominating the market and accounting for 82.3 percent of all creative services exports. Despite this significant gap, there has been a gradual reduction in the disparity over the past decade, indicating a shift in the distribution of creative services on the global stage.

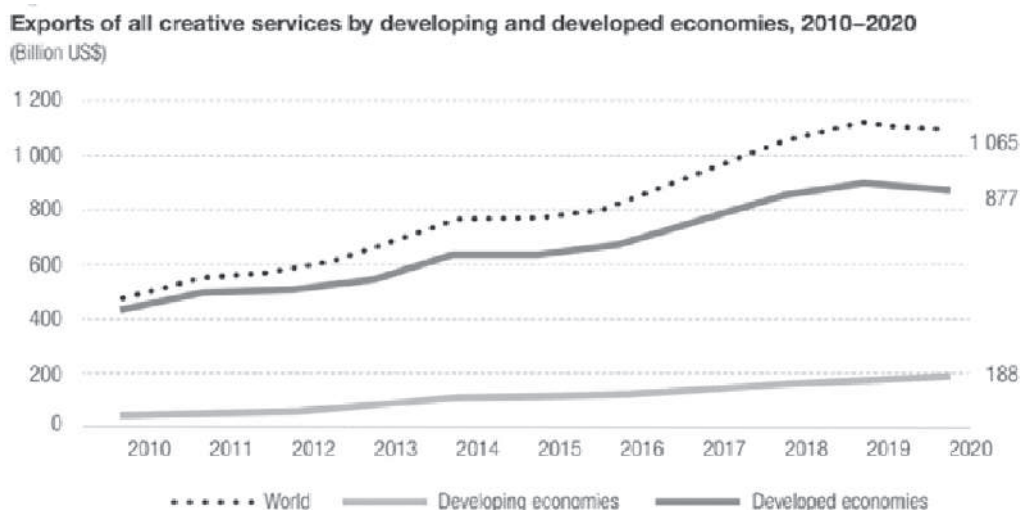


Fig 5. Exports of all Creative Services by Developing and Developed Economies

Source: UNCTAD

The period since 2011 has witnessed a significant transition in the landscape of global creative goods

exports, with developing economies taking the lead. Developed countries continue to dominate the export of creative services, accounting for a substantial majority in 2020.

CREATIVE INDUSTRIES AND SUSTAINABLE DEVELOPMENT

Human ingenuity and creativity are positioned as the ultimate renewable resource. Unlike finite planetary resources, the potential for creative thinking and problem-solving is considered limitless. The importance of leveraging education, health, sciences, culture, communication, and information to achieve the United Nations' Sustainable Development Goals (SDGs) outlined in Agenda 2030. The need to actively promote creativity is stressed, indicating that creativity is not only a natural human capability but also something that can be nurtured and cultivated. Collaboration and the sharing of knowledge are seen as essential components in the pursuit of sustainability. This includes the exchange of ideas, information, and expertise across various domains. Innovative policies and procedures are highlighted as necessary for achieving sustainability. This implies that traditional approaches may need to be reconsidered, and new, creative solutions may be required in governance and decision-making processes. Digital tools can play a crucial role in mobilizing efforts toward sustainability. This may include utilizing technology for communication, data analysis, and problem-solving.

The core argument is that creativity is not just a supplementary aspect but is fundamental to sustainable development. It is positioned as being rooted in social, economic, environmental, and cultural practices.

The relationship between creative industries and sustainability is multifaceted and dynamic, with creative industries playing a significant role in contributing to sustainable development in various ways.

- **Economic Contribution:** Creative industries contribute to economic sustainability by generating income, creating jobs, and fostering entrepreneurship. The economic impact extends beyond the creative sectors, influencing the overall economic landscape of a region or country.
- **Innovation and Problem-Solving:** Creative industries are hubs of innovation, often finding novel solutions to challenges. This innovative capacity can contribute to sustainable practices in areas such as resource management, renewable energy, and environmental conservation.
- **Cultural and Social Sustainability:** Creative industries play a vital role in preserving and promoting cultural heritage, fostering social cohesion, and celebrating diversity. This cultural sustainability contributes to the well-being and identity of communities.
- **Environmental Considerations:** Creative industries can influence sustainable practices by incorporating eco-friendly processes and materials. This is particularly relevant in fields like design, architecture, and fashion, where choices in production methods and materials can have significant environmental impacts.
- **Educational and Skill Development:** Creative industries provide opportunities for education and skill development, contributing to human capital development. A skilled workforce is essential for addressing societal challenges and driving sustainable development.
- **Community Engagement:** Creative industries often engage with local communities, promoting social responsibility and sustainable development practices. This involvement can lead to projects that benefit both the industry and the community.

- Technological Advancements: Creative industries are often at the forefront of adopting and developing new technologies. This can lead to advancements that have applications beyond the creative sector, contributing to sustainable technological solutions.
- Promotion of Sustainable Lifestyles: Creative industries have the power to shape cultural norms and influence consumer behavior. Advertisements, media, and cultural products can promote sustainable lifestyles, influencing choices related to consumption and resource use.
- Tourism and Place Branding: Cultural and creative attractions contribute to sustainable tourism by attracting visitors interested in authentic experiences. Additionally, creative industries can play a role in place branding, enhancing the reputation and attractiveness of a location.
- Cross-Sector Collaboration: Collaboration between creative industries and other sectors, such as technology, science, and business, can result in innovative solutions to global challenges. These collaborative efforts contribute to sustainability across various domains.
- Resilience and Adaptability: Creative industries are often adaptable to change, reflecting a capacity for resilience. This adaptability is crucial in the face of environmental, economic, and social changes, contributing to the overall sustainability of the industry.

CONCLUSION

The creative economy, when aligned with sustainability goals, becomes a driving force for positive transformation. As we move forward, it is crucial for policymakers, businesses, and communities to recognize and harness the potential of the creative economy in creating a sustainable and inclusive future. By fostering creativity, embracing innovation, and integrating sustainability principles, we can build a resilient and vibrant global society that meets the needs of the present without compromising the ability of future generations to meet their own needs. By aligning the creative economy with sustainability goals and taking intentional steps to leverage its potential, societies can navigate the complexities of the modern world. This approach not only addresses current challenges but also sets the foundation for a future that is characterized by creativity, innovation, inclusivity, and a deep commitment to environmental and social responsibility.

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EMPOWERING THROUGH INNOVATION: THE PIVOTAL ROLE OF STARTUPS IN WOMEN ENTREPRENEURSHIP

Dr. Shruti Agrawal*

ABSTRACT

Entrepreneurship involves generating wealth for society through entrepreneurial skills that benefit not only the individual entrepreneur but also have positive effects on society, government, and the nation's economy. This is achieved by seizing opportunities in a rapidly changing social, political, legal, and economic landscape. There has been a notable rise in the number of startups in recent years, with a majority of founders being male. However, there is a growing trend of female entrepreneurs actively engaging in and excelling on digital platforms. Women are crucial contributors in various aspects of life, including family dynamics and societal development. However, when it comes to entrepreneurship, there is a notable lack of participation by women entrepreneurs. Despite the 21st century's emphasis on women empowerment, where both governments and societies recognize the significance of women's involvement, there remains a gap in addressing women entrepreneurs in policy-making. The active participation of women is essential for socio-economic advancement and the overall well-being of any nation. The growing utilization of the internet, technology, and the simplification of communication is providing women with new opportunities in the digital business market. The present paper aims to explore the multifaceted role that startups play in fostering and advancing women entrepreneurship and the challenges faced by women entrepreneurs for doing startups.

Keywords: *Women, entrepreneurship, startup, challenges*

INTRODUCTION

In recent years, there has been a significant surge in the number of women entrepreneurs breaking barriers and making their mark in various industries. Central to this transformative shift is the emergence and flourishing of startups, playing a crucial role in empowering women to take charge of their entrepreneurial journey. On Independence Day in 2016, Prime Minister Narendra Modi introduced the "Start-up India" initiative along with the Stand-up scheme. The primary goal of this initiative is to encourage entrepreneurship and stimulate innovation to foster the development of startups. The overarching objective is to transform India into a country where individuals actively create employment opportunities rather than just seeking jobs. An entrepreneur plays a crucial function in the development of society. Growth of entrepreneurial customs and sustainable business are needs for the growth of the economy. Entrepreneurship development act as a catalyst in developing key element in strategies that allows economies to benefit from the talents, energy, and ideas. The Government of India has defined women entrepreneurs as "An enterprise owned and controlled by women having a minimum financial interest of 51 per cent of the capital and giving at least 51 per cent of the employment generated in the enterprise to women. Women Entrepreneur is a

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person who accepts a challenging role to meet her personal needs and become economically independent.” Women Entrepreneurs are extremely increasing in the economies of almost all countries. The hidden business potentials of women have been increasing with the growing sensitivity to the role and economic status within the society. The knowledge, ability and compliance in business are the core reasons for women to come forward into business ventures. Women entrepreneurs engage in business as a result of push and pull factors that provide confidence to women to have a self-sustaining occupation and stand on their feet. In the dynamic realm of business and innovation, startups stand out as the engines of change, propelling new ideas, disrupting industries, and shaping the future. The term "startup" embodies more than just a business venture; it represents a spirit of entrepreneurship, creativity, and a willingness to challenge the status quo. According to the latest Economic Survey 2021-22, India has become the third-largest startup ecosystem in the world after the US and China. A record 44 Indian startups achieved unicorn status in 2021, taking the overall tally of startup unicorns in India to 83, the majority being in the services sector. India has over 61,400 startups recognized by the Department for Promotion of Industry and Internal Trade (DPIIT), with 14,000 recognized during fiscal 2022. Out of the 44 Indian startups that turned unicorns in 2021, four were helmed by women. The number does seem low at first, but it is definitely higher than the two women-led companies that made it to the list in 2020. And, as a frosting on the cake, four-female led companies entered the unicorn club in the first two months of 2022: Ghazal Alagh's Mamearth, Rajoshi Ghosh's Hasura, Smita Seorah's LEAD School and Dr Garima Sawhney's Pristyn Care. Digital media serves as more than just a platform for expressing oneself; it also offers a secure channel for transforming significant ideas into influential brands for women entrepreneurs globally, including those in India. Digital Startups can be defined as “any attempt or any startup businesses with the objective of gaining profit in return utilize the information technology for business purposes”. Digital Startups intensively use digital technology for creating new digital business models, improving business operations, engaging customers and stakeholders through digital channels and sharpening business intelligence. Women in India entered the industry due to pull and push factors with full of challenges, like Male-dominated society, Problem of finance, Limited mobility, Legal formalities, Exploitation by middlemen, underestimated, Lack of information regarding the resources. Even after having lots of hurdles, many women have proved themselves independent and flourishing entrepreneurs. The emergence of women entrepreneurs and their important contributions to the nation are visible and these businesses are equipped for sustained growth prospects. Women comprise half of the total population (495.74 million) in India, but their contribution to economic activity is negligible.

REVIEW OF LITERATURE

Munshi, S et al, (2011) defined the term "women entrepreneurship" as the creative activity involving the initiation and operation of a business venture with the aim of achieving economic empowerment and fostering social betterment for women in society. This definition emphasizes the positive impact, both economically and socially, that women entrepreneurs can have on their communities. It underscores the notion that women engaging in entrepreneurial activities not only contribute to their own economic well-being but also play a vital role in enhancing the overall social and economic fabric of society. **Brush, De Bruin, and Welter (2009)** developed a framework focused on gender awareness in women's entrepreneurship. Their research expands upon an existing model that outlines the essential "3Ms" (markets, money, and management) necessary for entrepreneurs to initiate and advance ventures. In their paper, they also propose the creation of a "5M" framework, aiming to facilitate the examination of women's entrepreneurship as a distinct and comprehensive

subject. **Petridou and Glaveli (2008)** conducted a study focusing on rural women involved in co-operatives and proposed recommendations for their training support. The research involved an evaluative study where 104 rural women, who were members of co-operatives and had undergone a specific training program, participated. Data on participants' perceptions regarding the impacts of the training intervention were gathered through anonymous questionnaires. The analysis of the data utilized descriptive statistics, factor analysis, and intercorrelations. **Deshpande and Sethi (2009)** conducted a comprehensive study on women entrepreneurship in India. Their review synthesis revealed the diverse profile of women entrepreneurs in the country. The paper emphasizes the critical necessity to decipher policy imperatives and interventions that can foster an environment conducive to women's entrepreneurship. **Rajani and Sarada (2008)** produced a report highlighting different support systems available to women. The study aimed to explore the significance of the family's role in successful women entrepreneurship. Data for this investigation was gathered from women entrepreneurs in the Kadapa district, and case studies were compiled for a thorough and in-depth analysis. In 2008, **Singh** conducted a study aimed at identifying the reasons and factors influencing the entry of women into entrepreneurship. The research also delved into elucidating the obstacles hindering the growth of women entrepreneurship. The identified factors included a lack of interaction with successful entrepreneurs, social unacceptance of women entrepreneurs, family responsibilities, gender discrimination, a deficit in social networking, and insufficient family and financial support. **Singh S. & Saxena, S. C. (2000)** stated that social conditioning often contributes to women being perceived as shy, introverted, and primarily focused on family obligations. This conditioning manifests in various challenges for women in entrepreneurship, including shyness in business interactions, low achievement motivation, a risk-averse attitude, lower levels of education, the burden of family obligations, gender bias within families and society, a lack of managerial skills and experience, insufficient access to business-related information, and difficulties in securing financial resources. Overcoming these challenges requires addressing societal norms, providing educational and skill-building opportunities, and creating a more supportive environment for women entrepreneurs. **Dhameja, S. K. (2002)** conducted a study and found that Women entrepreneurs face a multitude of challenges across various domains, including social, personal, marketing, mobility, lack of government support, financial constraints, production and labor-related issues, and inadequate technical expertise. Additionally, the stress of maintaining a work-life balance is often cited as a significant challenge. Addressing these challenges requires comprehensive efforts, such as implementing supportive policies, providing targeted financial assistance, offering skill development programs, and fostering an environment that encourages a healthy work-life balance. By recognizing and addressing these challenges, there can be a positive impact on the success and sustainability of women-led businesses. **Cader and Leatherman (2011)** concluded that policies and conditions specific to certain sectors play a crucial role in fostering the survival of technology-based firms. Conversely, agglomeration economies were found to impede the chances of survival for these firms. **Audretsch and Lehmann (2004)** established that the availability of funding and venture capital is another crucial factor influencing the competitiveness of technology-based start-ups, particularly in the pre-growth stages.

OBJECTIVES OF THE STUDY

1. To ascertain the significance of startups in the context of women entrepreneurship.
2. To examine the challenges faced by women entrepreneurs.

RESEARCH METHODOLOGY

The present study is purely based on secondary data collected through literature survey, journals, newspapers, websites and published articles relating to this particular topic.

ROLE OF STARTUPS IN WOMEN ENTREPRENEURSHIP

i)Creating Inclusive Ecosystems:

Startups inherently embody a culture of innovation and inclusivity. They often operate in dynamic environments that encourage diversity and fresh perspectives. This inclusive culture is pivotal for women entrepreneurs, providing a supportive backdrop where their ideas and skills can flourish without the constraints of traditional business structures.

ii)Flexible Work Environments:

Startups are known for their agility and flexibility. This characteristic is particularly advantageous for women who may have diverse responsibilities, including caregiving or family commitments. The flexibility offered by startups enables women to balance their professional and personal lives more effectively, thus encouraging their active participation in entrepreneurship.

iii)Access to Funding Opportunities:

Access to funding is a critical factor in the success of any entrepreneurial endeavor. Startups, often fueled by venture capital and angel investors, provide a platform for women entrepreneurs to secure the financial backing they need. Many startups specifically focus on supporting women-led initiatives, bridging the gender gap in access to funding.

iv)Mentorship and Networking:

Startups cultivate a culture of mentorship and networking, connecting budding entrepreneurs with experienced individuals who can guide them through the challenges of business. For women entrepreneurs, this mentorship is invaluable, offering insights into navigating industries traditionally dominated by men and providing a roadmap for success.

v)Promoting Tech-Driven Solutions:

Many startups are at the forefront of technological innovation. By leveraging technology, women entrepreneurs can create and scale businesses that transcend geographical boundaries. Technology-driven startups often require skills rather than gender-specific attributes, creating a level playing field for women to excel in sectors that were historically male-dominated.

vi)Inspiring Role Models:

Successful women entrepreneurs emerging from startups serve as inspirational role models for aspiring individuals. By showcasing stories of achievement and resilience, these role models motivate other women to pursue their entrepreneurial aspirations. Startups, with their focus on disruptive ideas and unconventional thinking, contribute significantly to the creation of these inspirational narratives.

vii)Addressing Unmet Needs:

Startups have the ability to identify and address unmet needs in the market. Women entrepreneurs often bring a unique perspective to business, identifying gaps and opportunities that may have been overlooked. By fostering an environment where diverse voices are heard, startups contribute to the development of innovative solutions that cater to a broader audience.

GOVERNMENT INITIATIVE FOR WOMEN ENTREPRENEURS IN INDIA

The Government of India has launched various schemes to promote and sustain women entrepreneurship. Startup India is dedicated to bolstering women entrepreneurship in India. This

commitment involves implementing various initiatives, schemes, the establishment of supportive networks and communities, and fostering partnerships among diverse stakeholders within the startup ecosystem. These efforts contribute to creating an environment that encourages and supports the participation and success of women entrepreneurs in the Indian startup landscape. Various schemes launched by the central Government includes Skill Upgradation and Mahila Coir Yojana, Mahila Samridhhi Yojana, Women Entrepreneurship Platform, Mudra Yojna for Women, etc.

Table.1 : Government Initiative under Five Year Plans

Approach	Specific initiatives
Welfare	First Five year plan (1951-56): Community based approach aiming for welfare of women. Establishment of Central Social Welfare Board.
Welfare	Second Five year plan (1956-61): Allocation for welfare extension projects was hiked.
Welfare	Third Five year plan (1961-66): Special aid to Mahila Mandals for welfare extension services. Providing financial support to voluntary organizations for implementing socio-economic programs for women beneficiaries. Provisions for vocational and skill development training to adult women
Welfare	Fourth Five year plan (1969-74): Budgetary allocations hiked for family planning activities.
Welfare	Fifth Five year plan (1974-78): Focus shifted to functional literacy programs for women.
Development	Sixth Five year plan (1980-85): Focus shifted to addressing the issue of economic up-liftment of women. Women's health, nutrition, education and employment were the prime target in this plan.
Development	Seventh Five year plan (1985-90): Policies and programs were focused on increasing gainful employment for women.
Empowerment	Eighth Five year plan (1992-97): National commission for women was established in 1992. Rashtriya Mahila Kosh was established in 1993. Mahila Samridhhi Yojana was initiated in 1993. Indira Mahila Yojana was launched in 1995-96.
Empowerment	Ninth Five year plan (1997-2002): National policy for empowerment of women was adopted. Integrated Rural Development Programme (IRDP), Training of Rural Youth for Self-Employment (TRYSEM), Nehru Rozgar Yojana (NRY), Jawahar Rozgar Yojana (JRY), Prime Minister's Rozgar Yojana (PMRY), Development of Women and Children in Rural Areas (DWCRA), Indira Mahila Yojana (IMY), Support for Training and Employment (STEP), NORAD-assisted Training-cum-Production Centres (popularly known as NORAD), Socio-Economic Programme (SEP) were implemented. Bill proposing reservation of seats in parliament and state assemblies was first proposed. Focus shifted to financial inclusion of women.
Empowerment	Tenth Five year plan (2002-07): National policy for empowerment of women was further strengthened through concrete measures. Swayamsidha scheme was implemented in support to Training and Employment Program for Women (STEP) ,Swawlamban Scheme, Hostels for Working Women and Swadhar schemes aimed at providing shelter, food, clothing, and care to the women living in difficult circumstances were implemented.
Empowerment	Eleventh Five Year Plan (2007-12): Focus shifted to programs for vocational training and skill development of women. Swayamsiddha scheme for women empowerment was pursued. Self help groups gained momentum. Rashtriya Mahila Kosh was integrated with STEP and Swayamsiddha.
Empowerment	Twelfth Five year plan (2012-17): Rashtriya Mahila Kosh was allocated larger budget. Central Social Welfare Board was given target to provide vocational training and financial assistance to women. STEP, Priyadarshini and working women's hostel, Ujjawala, Swadhar Greh scheme to provide institutional support for women. Gender Budgeting Cells were strengthened. All ministries and departments were directed to maintain gender disaggregated data.

(Tiwari, 2017)

CHALLENGES FACED BY WOMEN ENTREPRENEURS

1. Access to Funding: Women often encounter difficulties in securing funding for their startups. Gender biases and stereotypes may influence investors, leading to a lower likelihood of financial support for female entrepreneurs. Availing finance and performing many responsibilities are major

hurdles faced by women in initiating and managing an enterprise.

2. **Gender Discrimination:** Gender-based discrimination can manifest in various forms, affecting women's credibility, opportunities, and networking capabilities in the startup ecosystem. Most industries are male-dominated. It is more of a challenge when a woman comes in as a leader and gives men directions. While most corporates believe in gender equality and agree that the best person, irrespective of gender, should get the job, there have been many instances where a woman having a gender-neutral name gets the job.

3. **Limited Networking Opportunities:** Women may experience challenges in accessing networks and mentorship opportunities, which are crucial for business growth. A lack of established connections can hinder their ability to gather resources and support.

4. **Work-Life Balance Struggles:** Due to primary household responsibilities towards her family, her time gets divided between the two worlds. Balancing the demands of entrepreneurship with family responsibilities can be particularly challenging for women. Society's expectations and traditional gender roles may add additional pressure.

5. **Limited Access to Information:** Unequal access to information and resources, coupled with a lack of awareness about available support programs, can impede women entrepreneurs from making informed decisions. Most of the women entrepreneurs are unaware about the various government policies.

6. **Market Access Challenges:** Sometimes women are found lacking in sales and marketing skills, which proves to be a graveyard for many small-scale women entrepreneurs. Breaking into certain industries or markets may be more challenging for women due to existing biases or gender-specific challenges in those sectors.

7. **Skill Development Barriers:** In some cases, women may face obstacles in accessing education and skill development programs necessary for entrepreneurial success.

CONCLUSION

In the ever-evolving landscape of entrepreneurship, startups play a pivotal role in dismantling barriers and empowering women to lead with innovation and resilience. By fostering inclusive environments, providing access to funding, promoting mentorship, and leveraging technology, startups contribute significantly to the growth of women entrepreneurship. The ongoing collaboration between startups and women entrepreneurs not only benefits individuals but also enriches the business ecosystem as a whole, driving positive change and fostering a more diverse and vibrant entrepreneurial landscape.

The whole motive behind the study is to highlight that women can contribute to the economy. It is these innovative minds which can cause growth of the economy to a level which even men can't imagine. India needs women to stand up and contribute towards the economy.

I would like to conclude with a famous saying by Dr. A.P.J Abdul Kalam:

“Empowering Women is a prerequisite for creating a good nation, when women are empowered, society with stability is assured. Empowerment of women is essential as their thoughts and their value systems lead to the development of a good family, good society and ultimately a good nation”.

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AN ECONOMIC ANALYSIS OF CULTIVATION OF SUGARCANE: A MICRO STUDY OF RUDRAPUR TEHSIL IN DEORIA DISTRICT, UTTAR PRADESH

Sukanya Maurya* Dr. Ahuti Singh**

ABSTRACT

This study focuses on the economic analysis of sugarcane cultivation in Rudrapur tehsil of Deoria district, Uttar Pradesh. The study was conducted using primary data collected from the three purposively selected villages, including Belkunda, Laxmipur, and Jungle Kitasem of Rudrapur tehsil. The data was collected through structured schedules from a sample size of 60 farmers for the year 2022-23. The study found that the overall cost of cultivating sugarcane in the study area was Rs. 66,770 per acre while the return was Rs. 136,136 per acre. However, the net profit from sugarcane cultivation was recorded at Rs. 69,366 per acre in the study area. To further improve profitability, the study recommends that farmers adopt modern irrigation methods, modern inputs, and soil testing before cultivation. Identifying the major constraints faced by the farmers of sugarcane cultivation in the study area were lack of modern inputs, unavailability of human and machinery labour during peak time, problems of technical knowledge, unavailability of quality seed plants (HYV-high yield variety), disease in crops, unavailability of financial facilities etc. In summary, this study provides valuable insights into the economics of sugarcane cultivation in Rudrapur tehsil of Deoria district, emphasizing the need for farmers to adopt modern techniques and practices to enhance their returns from the crop.

Keywords: *Sugarcane, Cost, Returns, Net profit, Constraints.*

1. INTRODUCTION

Sugarcane is one of the most important commercial cash crops in India, both in terms of its economic significance and cultural importance. India is the world's second largest producer of sugarcane, after Brazil, and the largest consumer of sugar. Sugarcane is mainly grown in the states of Uttar Pradesh, Maharashtra, Karnataka, Tamil Nadu, Gujarat, and Andhra Pradesh.

Sugarcane cultivation in India has a long history, dating back to ancient times. The cultivation of sugarcane is mentioned in ancient texts such as the Ramayana and the Mahabharata, and India has been producing sugar for over 2000 years. The cultivation of sugarcane in India was initially concentrated in the Ganges river valley, but it spread to other parts of the country over time.

Today, sugarcane is an important cash crop for farmers in India, providing a significant source of income and employment. Sugarcane is not only used for the production of sugar but also for the production of molasses, which is used to produce alcohol, and biogases, which is used as fuel in boilers to generate electricity. However, sugarcane cultivation in India is not without its challenges. The industry faces issues such as low productivity, outdated technology, and a lack of infrastructure. Despite these challenges, the cultivation of sugarcane remains an important economic

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activity in India.

In India which is dominated by a rural population, the majority of households depend mostly on agriculture for their livelihoods. Agriculture plays an important role in the Indian economy as it contributes 19 percent to the GDP. In the Indian economy, sugarcane production plays a significant role and is the country's second-largest agro-based industry after cotton. Sugarcane occupies an area of 4.62 million hectares in India, producing 399.26 million metric tonnes with a yield of 26181 kg/Ha (Directorate of Economics & Statistics, Department of Agriculture and Farmers Welfare). Sugarcane production crucial for the economy, employment opportunities, foreign exchange, and provides the raw material for sugar and industries producing alcohol, paper, chemicals and cattle feed.

Uttar Pradesh is the highest producing state in sub-tropical zone, with an area of about 2.18 million hectares, production of 177.67 million metric tonne, and a yield of 81500 kg/ha (Directorate of Economics & Statistics, DOAFW). In sugarcane production eastern Uttar Pradesh is the prime sector in Uttar Pradesh. Eastern Uttar Pradesh has a number of mills, including both large and small ones, and ancillaries. Out of the total 30 working mills, 25 mills make a cluster occupying 8 districts (i.e., Kushinagar, Deoria, Gorakhpur, Maharajganj, Bahraich, Balampur, Gonda, Basti) because of availability of sufficient amount of sugarcane in this area. It has a fertile plain, which is highly suitable for the cultivation of sugarcane (Tiwari & Sharma 2019).

Deoria district is one of the leading districts in sugarcane production in Uttar Pradesh. Sugarcane occupies an area of 11,072 hectare with a production of 6,152,046 m.t. and a productivity of 555.64 quintal/ha. While the economic conditions of framers in Deoria district have improved, they are facing several issues, such as increasing sugarcane production costs and decreasing productivity etc. Therefore, there is a need to focus on addressing these issues. This study attempts to analyze the economic analysis of cultivation of sugarcane in Rudrapur tehsil of Deoria district.

2. LITERATURE REVIEW

Chocklingam et al. (2008) conducted an extensive study on sugarcane cultivation in Namakkal district, where they identified several contributing factors to its success, including an abundant labor force, access to irrigation facilities, government support, and readily available loans from banks. Their survey primarily aimed to pinpoint the challenges faced by sugarcane cultivators, ranking them as follows: a shortage of seeds, insufficient fertilizers, inadequate loan facilities, subpar irrigation options, limited adoption of modern techniques, and issues during harvesting. Notably, delayed harvesting due to a lack of cutting orders resulted in reduced yields and financial losses for stakeholders. Addressing these issues

through government intervention would not only benefit sugarcane farmers but also other stakeholders and foster rural economic growth.

In "Perspective of Sugarcane Agriculture" (Mahalingam, 2013), presented during the National Interactive Workshop in June 2012, experts in the field advocated for the adoption of drip irrigation systems, which could potentially double the irrigated area using the same water quantity as conventional flood systems. Additionally, implementing scientific cultivation practices could boost sugarcane yields to over 170 tonnes per hectare. The study also provided valuable insights into protecting sugarcane crops from pests and diseases, sharing the experiences of farmers who achieved yields exceeding 200 tonnes per hectare.

Rajnikanth B.T et al. (2013) offered recommendations to improve the socio-economic status of sugarcane unit workers, a majority of whom are illiterate and hail from economically disadvantaged backgrounds. Many of these workers lack basic sanitation facilities at home and earn comparatively

low wages, often leading to financial deficits and reliance on loans. These factors collectively highlight the unfavorable socio-economic conditions faced by sugarcane workers, necessitating improvement measures.

Waghmode et al. (2015) conducted a comprehensive study on resource productivity and efficiency in sugarcane production at the Vaidyanath Sugar Factory in the Beed District. The research encompassed 10 villages with varying farm sizes, categorized as small, medium, and large, and included a sample of 90 sugarcane growers. The study collected primary data on general cultivator and household information, cropping patterns, labor and input utilization, and cultivation costs.

Rout et al. (2015) delved into farmer perceptions and constraints related to sugarcane production in Orissa. Their study involved both primary and secondary data, with a sample of 160 farmers from Dhenkanal and Kankadahad blocks. The findings revealed the impact of climatic constraints on sugarcane productivity and sugar recovery, as well as varying farmer perceptions of soil and water quality.

Thakar Singh et al. (2015) discussed the cultivation of intercrops alongside autumn sugarcane, offering insights into profitable practices that do not negatively affect sugarcane production. These intercrops can complete their lifecycle during sugarcane's initial growth, suppressing weed growth and optimizing water usage. However, chemical weed control recommendations for intercropped sugarcane differ from those for sole crops and should be followed as advised by experts.

Pandey et al. (2016) aimed to address issues in the system of sugarcane cultivation, such as limited use of high-yield sugarcane varieties, small farm sizes, and obstacles to adopting modern farming techniques in Kushinagar District, Uttar Pradesh.

Saravanan (2016) analyzed the resource use patterns and technical efficiencies in sugarcane production in Gobichettipalayam Taluk of Erode District, Tamil Nadu. The study highlighted the need for increased investment in agricultural extension services and suggested improved guidance on fertilizer and pesticide use to reduce the cost of sugarcane harvesting.

Yadav et al. (2021) identified key constraints in sugarcane cultivation in SantKabir Nagar District, including a lack of technical knowledge, labor shortages during peak times, insufficient irrigation facilities, and limited access to finance.

Upreti and Singh (2017) conducted an economic analysis of sugarcane cultivation and productivity in major sugarcane-producing states, namely Uttar Pradesh and Maharashtra.

They noted differences in cultivation costs and productivity between the two states and recommended efficient utilization of resources, including human labor, pesticides, fertilizers, machinery, and plot size, to increase sugarcane productivity.

These studies collectively shed light on various aspects of sugarcane cultivation, including challenges faced by farmers, opportunities for improvement, and regional variations in the industry's development.

3. RESEARCH GAP

To the best of the researcher's knowledge, there has been no extensive study conducted on the economic analysis of sugarcane cultivation in Deoria district. No previous economic analysis study has been carried out regarding sugarcane cultivation in Deoria district.

4. OBJECTIVE OF THE STUDY

To study the socio-economic status of sugarcane farmers.

To estimate the cost and return of sugarcane farming.

To identify the major constraints faced by sugarcane farmers.

5. SIGNIFICANCE OF THE STUDY

This study is really important! It's not just useful for sugarcane farmers in India, but also for sugar factories, jaggery producers, juice vendors, traders, and policy makers. By looking at the costs and profits of sugarcane farming, the study shows how profitable it is and helps farmers come up with ways to grow more sugarcane and sell it better. The study also points out the main problems farmers face and gives suggestions on how to solve them.

6. DATA AND METHODOLOGY

Firstly, this study is primarily based on primary data sources and survey method, where data is collected by conducting interview schedule based on semi structured questionnaire among the sugarcane farmers of Rudrapur tehsil and on the basis of their response analysis is done. Secondly, using secondary data have been collected by going through books, research papers, articles, different websites etc.

Purposive Sampling method was used to collect the primary data. Firstly, Rudrapur tehsil has been selected out of the six tehsil of Deoria district. Secondly, three villages, namely Belkunda, Laxmipur, and Jungle Kitasem, from Rudrapur tehsil have been selected for the present study on the basis of sugarcane cultivation. Thirdly, 20 farmers from each village were selected.

Table 1. Size of Sample of Sugarcane farmers

Sr. No.	Village	Sample Farmers
1.	Belkunda	20
2.	Laxmipur	20
3.	Jungle Kitasem	20
	Total	60

In order to analyze data, all the responses of the questionnaire are entered in Ms.Excel and with the help of Ms.Excel number and percentage of responses under each is head is calculated. Using average and percentage as a statistical tool, the relationships among various variable is withdrawn.

7. RESULTS AND DISCUSSION

7.1 Socio-Economic Conditions of Sample Sugarcane Farmers

The details were gathered using the survey and structured schedule methodologies in order to learn more about the socio-economic position of the sample sugarcane producers. It is presented below:

Table.2 Socio-Economic Characteristics of Sample Sugarcane Farmers

Parameters	Category	Respondents (N=60)	
		Number	Percentage
Gender	Male	57	95
	Female	3	5
Religion	Hindu	59	98
	Muslim	1	2
	Others	0	0

Parameters	Category	Respondents (N=60)	
		Number	Percentage
Caste			
	General	2	3
	EWS	2	3
	OBC	49	82
	SC	4	7
	ST	3	5
Age group			
	20-40	11	18
	41-60	26	43
	Above 60	23	38
Marital status			
	Married	55	91.6
	Un-married	5	8.3
Education			
	Illiterate	12	20
	Primary (1st to 4th std.)	5	8
	Secondary (5th to 10th std.)	17	28
	Higher Secondary	19	31
	Under Graduate	5	8
	Post Graduate	2	3
Family composition			
	Joint Family	27	45
	Nuclear Family	33	55
Family size			
	Small	6	10
	Medium	31	51
	Large	23	38
Annual agricultural income			
	Lower income (up to Rs. 15000)	5	8
	Medium income (Rs. 15000- Rs.50000)	32	53
	Higher income (above Rs. 50000)	23	38
Source of irrigation			
	Own tube well / Pump set	43	71
	Private tube well / Pump set	17	28
Housing facilities			
	Concrete House	53	88.3
	Rough House	7	11.7
Source of Sugarcane Seed Plants			
	Self	2	3.3
	Other Farmers	18	30
	Seeds Traders	30	50
	Friends & Relatives	10	16.7

Source: Primary data from field survey

In the table.2, it is evident that male farmers dominated the respondents, constituting 95 percent of the sample farmers, while only 5 percent of the sample farmers were female. The majority of the sample farmers belonged to the Hindu religion, accounting for 98 percent of the total sample farmers. Muslim sample farmers constituted 2 percent, while there were no sample farmers from other religions. The

highest proportion of sample farmers belonged to the OBC category, comprising 82 percent. Following closely were the SC, ST, General, and EWS categories, with 7 percent, 5 percent, 3 percent, and 3 percent of sample farmers, respectively, in relation to the total number of sample farmers. The majority of the sample farmers fell within the OBC category.

The highest number of sample farmers fell within the 41-60 age group, constituting 43.33 percent of the total sample farmers, known as the middle-age group. The second-highest age group was above 60 years, accounting for 38.33 percent, while only 18.33 percent of the sample farmers were in the 21-40 years age group. The majority of the sample farmers were married, making up 91.67 percent of the total sample farmers, while unmarried sample farmers comprised 8.33 percent.

It is notable that most of the sample farmers had attained a secondary education level (5th to 10th grade) and higher secondary education, with percentages of 28.33 percent and 31.67 percent, respectively. 8.33 percent of sample farmers had completed primary education. Additionally, 8.33 percent and 3.33 percent of sample farmers had received undergraduate and postgraduate education, while 20 percent of sample farmers were illiterate.

In the table.2, it is apparent that the majority of families among the total sample farmer families preferred nuclear families over joint families, with more than 50 percent of families being nuclear. This preference ultimately affected the size of land holdings. From the data, it can be seen that the medium-sized families were the most common, making up 51.67 percent of the total sample farmers. 38.33 percent of sample farmers came from large families, while only 10 percent were from small families. The majority of the sample farmers were engaged in agriculture as their main occupation, accounting for 91.67 percent. 5 percent of sample farmers worked in the business sector, and 3 percent worked in the service sector.

Upon analyzing the table, we found that the majority of sample farmers had medium income levels (Rs. 15,000 - Rs. 50,000), comprising 53.33 percent of the total sample farmers. This was followed by higher income (above Rs. 50,000) farmers at 38.33 percent and lower income (up to Rs. 15,000) farmers at the lowest percentage of 8.33 percent.

Regarding water sources, the majority of the sample farmers had their own tube wells, accounting for 71.66 percent of the total sample farmers, while the remaining 28.34 percent used private tube wells. Most of the farmers resided in concrete houses, with 88 percent of the total sample farmers living in such houses (Pakka houses), while the remaining 12 percent lived in makeshift houses (Kaccha houses).

Regarding the sources of sugarcane seeds used by the sample farmers, 50 percent of them purchased the seeds from seed traders, 30 percent obtained seeds from other farmers, 16.66 percent acquired seeds from friends and relatives, and only 3.33 percent used their own seeds, not borrowing from anyone else.

The table.3 provides information on the distribution of household items among the sample farmers. Upon analyzing the data, it becomes evident that television and cooking gas were the most common household items, utilized by 96.67% of the sample farmers, while mobile phones were almost universally used, with 98.33% of the sample farmers owning one. Almost all the farmers (98.33%) employed fans for cooling, while coolers were utilized by only 46.67% of the sample farmers. A mere 16.67% of the sample farmers managed to afford four-wheelers, whereas 81.67% relied on two-wheelers for transportation. Washing machines and refrigerators were among the less affordable household items, being used by 40% of the sample farmers. Only 16.67% of the sample farmers were found to purchase newspapers.

Table.3 Household and agricultural items possession of sample sugarcane farmers

Items	Number of the sample farmer out of 60	Percentage to the total number
Household Items		
Cooking gas	58	96.67
Television	58	96.67
Phone / Mobile	59	98.33
Refrigerator	24	40
Fan	59	98.33
Cooler	28	46.67
Washing machine	24	40
News paper	10	16.67
Two Wheeler	49	81.67
Four Wheeler	10	16.67
Agriculture Items		
Chaff cutter	55	91.61
Tube well	43	71.67
Cultivator	23	38.33
Tractor	23	38.33
Sprayer	46	76.67
Rotavator	20	33.33

Source: Primary data from field survey

Additionally, let's address the distribution of agricultural items among the sample farmers. The most common agricultural item was the chaff cutter, employed by 91.61% of the total sample farmers, followed by sprayers, used by 76.67% of the sample farmers. Tube wells were utilized by 71.67% of the sample farmers, while cultivators, tractors, and rotavators were the least used agricultural items.

7.2 Total Cost Per Acre and Average Cost of Sugarcane Cultivation

The table.4 provides a detailed overview of the costs associated with sugarcane cultivation per acre in the study area for the year 2022-23. The total cost incurred by the sample farmers amounted to Rs. 66,770. Among these costs, harvesting expenses represented the largest portion, accounting for 34.41% of the total cost.

Table.4 Total Cost Per Acre and Average Cost of Sugarcane Cultivation

S. No.	Particulars	Per acre Total Cost (in Rs.)	Per acre Total Cost (in percentage)	Average cost (in Rs.)	Average cost (in percentage)
1.	Material Cost				
	• Seed Plants	8520	12.76	12257	12.94
	• Fertilizers	2571	3.85	3698	3.91
	• Pesticides	4963	7.43	7140	7.54
	• Irrigation Charges	4518	6.77	6500	6.86
	Total material cost	20572	30.81	29595	31.25
2.	Human Labour Cost				
	• Family Labour	741	1.11	1067	1.13
	• Hired Labour	3669	5.49	3913	4.13
	Total human labour cost	4410	6.61	4980	5.26
3.	Ploughing Cost:	5918	8.86	8514	8.99
4.	Interest on Working Capital	508	0.76	731	0.77
5.	Fixed Cost				
	• Rental Value of Own Land	8133	12.18	11700	12.36
	• Rental Value of Land	1622	2.43	2333	2.46
	• Interest on Fixed Capital (Tractor, Sugarcane Planter & Inter-cultivator etc.)	203	0.30	292	0.31
	Total fixed cost	9958	14.91	14325	15.13
6.	Harvesting Cost				
	• Harvesters Cost	1476	2.21	2123	2.24
	• Loading Charge	7032	10.53	10117	10.68
	• Transportation Charge	14470	21.67	2817	21.98
	Total harvesting cost	22978	34.41	15057	34.9
7.	Other Cost	2426	3.63	3490	3.69
8.	Total Cost	66770	100	94692	100

Source: Primary data from field survey

Material costs came in second, making up 30.81%, with seed plants being the most significant component at 12.76%, followed by pesticide expenses at 7.43%, and irrigation and fertilizer costs. Human labor costs, including both family and hired labor, amounted to over 6% of the total cost. Ploughing expenses totaled Rs. 5,918, or 8.86% of the total cost. Interest on working capital was minimal at Rs. 508, constituting 0.76% of the total cost. Fixed costs, which included rental costs for owned land (12.18%), the rental value of land (2.43%), and interest on fixed capital (0.30%), made up 14.91% of the total cost. Harvesting costs were the most substantial, totaling Rs. 22,978 or 34.31% of the total cost. This category included expenses related to harvesters (10.53%), loading (10.53%), and transportation (21.67%). Other costs amounted to Rs. 2,426, equivalent to 3.63% of the total cost.

In summary, the table provides a comprehensive picture of the distribution of costs associated with sugarcane cultivation in the study area for the specified year. Notably, it highlights the significant expenses related to harvesting and material inputs, as well as considerations for labor, ploughing, and fixed costs. This detailed cost analysis is essential for understanding the economic aspects of sugarcane farming in the region.

7.3 Return and Net Profit of Sugarcane Cultivation

Table.5 Return and Net Profit of Sugarcane Cultivation

	Amount (in Rs.)
Total Returns from sugarcane	136136
Total Cost of cultivation of sugarcane	66770
Net Profit from sugarcane	69366

The table.5 shows the return and net profit per acre of sugarcane cultivation. The return from sugarcane cultivation was found to be 136,136 rupees, total cost of cultivation of sugarcane was 66,770 rupees and net profit from sugarcane was 69,366 rupees. The above data concludes that sugarcane cultivation benefits the sampled farmers in the study area. To gain more benefit from the cultivation of sugarcane, farmers should use modern inputs and consider alternative cropping patterns.

7.4 Major Constraints of Sugarcane Cultivation

Sugarcane is a crop that takes a lot of time and effort to grow, and farmers need to invest a lot of money in it. Some common problems faced by farmers when growing sugarcane include a shortage of workers, high labour cost, disease, more rats and weeds, high cost and poor quality inputs, not having the right equipment, reduced yield due to growing sugarcane too often, and not being aware of government programs or policies that could help them.

Table.6 Major constraints faced by Sample sugarcane farmers

Constraints	Frequency	Percentage	Rank
Unavailability of human and machinery labour in peak time	50	83.33	1 st
Problem of technical knowledge	48	80	2 nd
Unavailability of quality seed plants (HYV)	45	75	3 rd
Diseases in crops	40	66.67	4 th
Unavailability of financial facility	35	58.33	5 th
Any technical challenges	33	55	6 th
Natural calamity	32	53.33	7 th
Any others problems	25	41.67	8 th
Timely payment on sugarcane trade	20	33.33	9 th
Unavailability of quality seed plants (HYV)	15	25	10 th
Irrigation facility	7	11.67	11 th
Dependency on rain for cultivation of sugarcane	2	3.33	12 th

Source: Primary data from field survey

The ranking depicted in the above table (4.22) concludes that the unavailability of human and machinery labour during peak time was the biggest problem faced by 50 farmers in the sample farmers. The problem of technical knowledge was the second constraints faced by 48 farmers in sample farmers. The third, fourth, fifth, sixth, seventh, ninth, and tenth constraints were the unavailability of quality seed plants (HYV), disease in crops, unavailability of financial facilities, technical challenges, natural calamities, timely payment on sugarcane trade, and unavailability of seed plants in time. The least and most minor constraints of irrigation facility and dependency on rain for the cultivation of sugarcane were faced by only 7 and 2 farmers, respectively. Through discussions with the respondents, it was found that there is done a mess during the weighing process when trading sugarcane, that is, the wrong weight is done. Respondents also stated that lack of modern inputs is a major constraint.

Major suggestion received from the respondent side to overcome the mentioned problem were to strengthening extension services to help farmers improve their methods and practices. This includes learning about new techniques to improve crop production and how to use machinery effectively to overcome labour and financial problems. Additionally government should provide detailed information on input management, crop planning, budgeting, and market information to help farmers dispose of their produce.

8. CONCLUSION

This study provides valuable insights into the economic analysis of sugarcane cultivation in Rudrapur tehsil of Deoria district, Uttar Pradesh. It sheds light on the socio-economic conditions of sample sugarcane farmers, the cost and returns of sugarcane farming, and the major constraints faced by these farmers. The study revealed that while sugarcane cultivation can be profitable, it comes with significant costs, especially related to harvesting and material inputs. Despite these challenges, the net profit from sugarcane cultivation was positive, indicating its economic viability for the sampled farmers. The major constraints identified in this study, including the unavailability of labor during peak times, lack of technical knowledge, and the quality of seed plants, highlight the need for targeted interventions and support for sugarcane farmers in the region. Additionally, issues related to timely payments in the sugarcane trade and the availability of financial facilities require attention to ensure the financial well-being of farmers. To address these challenges and further enhance the profitability of sugarcane cultivation, the study recommends several measures. Farmers should adopt modern irrigation methods, improve their knowledge through extension services, and conduct soil testing before cultivation. Access to low-interest finance and subsidies for modernization should be facilitated and proper guidance on input management and organic farming practices should be provided. Additionally, collective or cooperative farming among smallholders could help improve agricultural practices and output. It is important for policymakers, sugar factories, jaggery producers, and other stakeholders to take note of the findings of this study. By addressing the identified constraints and promoting modernization and knowledge transfer, the sugarcane industry in Rudrapur Tehsil and similar regions can thrive and contribute positively to the livelihoods of farmers and the overall economy.

9. RECOMMENDATION

Almost all the sample farmers have marginal land holdings, so it is recommended that they practice collective or cooperative farming to improve agriculture. They can also increase their by cultivating cash crops in irrigated areas. To ensure suitable plantation and cultivation, farmers should conduct soil testing before cultivation. It is suggested that farmers adopt modern irrigation methods like drip or sprinklers and receive low- interest finance and subsidy to implement them. Proper guidance is necessary for the appropriate use of chemical components like fertilizers, nutrition, pesticide, and insecticides. Farmers should also be encouraged to practice organic farming.

To increase sugarcane productivity, farmers should use modern inputs and consider alternative cropping patterns. The government should implement a comprehensive agriculture insurance scheme that covers all farmers. To address the issue of chronic labour shortages in sugarcane cultivation and harvesting, farmers should be given access to modern cultivation and harvesting machines.

10. LIMITATIONS OF THE STUDY

The sample size for this study was 60, selected purposively. With such a small sample size, we cannot

accurately predict the conditions for the entire district, and therefore, we cannot generalize the study's outcomes to the entire district.

Detailed analysis of every aspect of the data was not possible due to constraints of time and money. Since the information and data are purely based on the respondents' memory, there is a possibility of bias and prejudice, and we cannot guarantee that the responses are completely unbiased.

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SAVING BEHAVIOR OF EMPLOYEES IN FRANCHISE RETAIL OUTLETS: A CASESTUDY OF VARANASI

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ABSTRACT

This study aims to examine the saving behaviour of employees working in franchise retail outlets in Varanasi. The study uses a mixed-method approach to collect and analyse data on the savings habits and purpose of employees. The data is collected through surveys and interviews with employees from different retail businesses and job profiles. The findings suggest that employees' saving behaviour is majorly influenced by their income level, age, and financial situation. Employees with higher income levels tend to save more than those with lower income levels. Similarly, employees that have more dependents (children) tend to be more proactive in saving and investing. Saving perception is also found to be an important factor in influencing saving behaviour. Employees who focus on saving and investment habit as their priority are inclined more towards saving. Many respondents believe on saving and investment habit making their priority but due to low levels of income slab and high expenditure they are not able to save. The study also found that employers can play an important role in promoting saving behaviour among their employees. This can be achieved through financial education programs, retirement savings plans, and other incentives that encourage employees to save for their future.

Keywords: *Savings, Employees, Retail sector, Investment,*

1. INTRODUCTION

The saving behaviour of retail employees is an important area of study in the current economic climate. Retail is a sector that has faced significant disruption in recent years, with increasing competition from online retailers and changing consumer behaviour. As a result, retail employees face a range of financial challenges, including low wages, irregular working hours, and limited opportunities for career advancement. These factors can make it difficult for retail employees to save for the future, and retain financial security for their family and well-being. Invest India, a department responsible for promoting investments in India, has reported that the retail industry contributes 10% to the country's gross domestic product and provides employment to 8% of the Indian workforce. Since the onset of COVID-19, a growing number of value-conscious online shoppers are also reshaping India's e-commerce landscape.

The objective of this study is to pinpoint the demographic elements that play a pivotal role in shaping the saving habits of employees within franchise retail establishments in Varanasi city. Additionally, it sheds light on the primary goals or motivations for saving among individuals employed in this industry. The study delves into how the inclination to save and having a structured savings plan can notably influence saving behaviors. Furthermore, it evaluates how factors such as age, gender, family size, education level, marital status, and income level affect the monthly savings of individuals.

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This study is motivated by two research questions:

- (1) To find out the impact of demographic factors on individual saving pattern
- (2) To examine major intents of individuals to save or delay current consumption.

Leading with research hypotheses

Ho: There is no significant impact of demographic variables on saving behavior of the salaried employees in franchise retail outlets.

Ho 1: There is significant impact of demographic variables on saving behaviour of the salaried employees in franchise retail outlets.

Most important contribution is to identify the factors that directly or indirectly impact decision-making regarding savings and barriers that prevent employees from achieving their financial goals. This study advances our understanding of financial situation and saving potential of individuals working in retail sector. By identifying the factors that promote saving behavior, the study can help policymakers and employers develop interventions that support employees in achieving their financial goals. This can lead to improved financial stability and security for employees, which can have broader economic benefits.

2.LITERATURE REVIEW

The standard of living in a country is heavily influenced by economic growth. Income, savings, and investments are three key indicators that can help measure the growth of an economy. These indicators are crucial as they provide insight into how much money people have to spend, how much they can save, and how much they are willing to invest. Overall, these factors contribute to the overall health and well-being of a nation's economy and its citizens. Anuradha(2015) With the global financial sector diversifying to offer people a wide array of savings and investment options, individuals adopting effective and efficient saving and investment practices can bolster economic growth and improve their personal financial standing. The paper explores multiple factors that can influence people's decisions to invest and save, focusing specifically on understanding how income, saving habits, and investment behavior interrelate among IT professionals in Bangalore. Ramanathan (2015) this research delves into how demographic aspects influence the investment inclinations of bank employees, concentrating on both investment products and decision-making factors. The study discovered that a majority of the respondents prioritize saving for security, shedding light on their personal finance and investment choices using data collected through structured questionnaire. Bentzel(1983) the primary goal of this study is to explore how demographic elements influence patterns in saving money, and it also analyzes additional influencing factors. Specifically, the research delves into the effects of demographic factors, the Swedish supplementary pension plan (ATP), and retirement age on savings habits. Results uncovers that ATP does not lead to a decrease in personal savings, and in fact, the accumulation of wealth often happens after reaching the current social security eligibility age of 65. Additionally, it concludes that demographic shifts have a minimal role in shaping savings behaviour in Sweden. Chakraborty (2011) examines the patterns in saving and investing among individuals in Orissa through a structured questionnaire approach. Various analytical methods, both parametric and non-parametric, were applied to a sample size of 200 respondents. The study's findings highlight that the savings objectives of the respondents were significantly influenced by independent variables such as age, occupation, and income levels. Further demonstrates that women, who are investors, tend to save a higher amount compared to their male counterparts. Bhardwaj (2019) study focuses on original data collected from 80 individuals employed at Chandigarh University using a structured questionnaire. The results established two key outcomes: firstly, there is a notable correlation between savings and age, income, as well as job position among

the individuals at Chandigarh University. Secondly, a majority of the respondents opted for Bank Fixed Deposits as their preferred savings avenue due to concerns related to safety and uncertainties. Kumar (2019) Within a range of investment choices, varying degrees of risk and potential returns influence the attractiveness of these options. The way individuals save and invest is guided by factors such as the safety of the initial amount, liquidity, stability of income, and how easily it can be transferred. Investment avenues encompass shares, banks, gold, silver, life insurance, and postal savings. This paper aims to analyse the investment trends within different groups like working women, salaried employees, and teachers, drawing from existing research. Data for this analysis was gathered from diverse sources including journals, websites, and research articles. Jeyadevi (2021) Saving necessitates giving up present spending but yields future benefits. Both saving and investment are now fundamental in everyday life, presenting numerous choices like bank fixed deposits, gold investments, real estate, post office services, mutual funds, insurance, shares, company deposits, and others. Investors have diverse goals, including maximizing profits, ensuring safety, capital appreciation, and maintaining a steady income. This study conducted a comprehensive review of five studies carried out in various Indian states and provided a concise summary of the researchers' recommendations. Shrivastava (2019) this study is to recognize and grasp the elements impacting the investment choices of individual investors. Comprehensive information has been compiled from worldwide literature concerning how individual investors typically approach investments. The research has also collated pertinent research articles from reputable journals to examine prevalent investment trends. The study aims to elucidate how diverse factors affect the investment preferences of investors nationwide. Shibeshi (2022) discusses factors influencing saving habits of employees working at Samara University. The analysis was done using binary logistic regression that indicated that 64.9% of employees had no saving experience and 35.1% of respondents, save some part of their income. Results also indicated that educational level and extra income majorly affect saving pattern. Prasad (2021) aims to investigate if there are any biases in saving behaviors based on various demographic factors. The study collected primary data through a questionnaire that utilized the Likert scale. The results indicated a noticeable bias in the savings behavior of investors linked to demographic variables. These findings can be valuable for financial institutions and bankers, helping them underscore these factors to devise effective strategies promoting saving and investment habits among individual investors. Gagneet (2018) recognizes the social and economic elements that impact how residents of Delhi save money during periods of inflation. To delve into this, a survey questionnaire was formulated to gauge how variables like income, family size, and similar factors affect saving behavior. The study encompassed a sample of 50 respondents, and data analysis was conducted using regression techniques. The findings revealed that individuals with lower incomes tend to save less, primarily because a substantial portion of their earnings is allocated to fulfilling their essential requirements.

3.METHODOLOGICAL FRAMEWORK

The study employs a mixed-method research design involving both quantitative and qualitative data collection techniques. It aims to comprehensively understand employees' saving behavior in Varanasi city, focusing on employees from various retail establishments such as Zudio, Reliance Trends, Reliance Jewels, Style Up, V2, Vmart, Megashop, Dominos, and Spencers. A sample of 53 individuals was collected using purposive sampling, identified based on industry reports and high-profit margin players. The data collection involved structured questionnaires with closed and open-ended questions, as well as interviews for personal experiences and insights. Quantitative data will be analyzed using descriptive statistics and regression analysis method, while qualitative data will undergo thematic analysis to identify patterns and themes, offering a deeper insight into the factors

influencing saving behaviour among employees. To find out the impact of demographic variables on saving pattern MS Excel and STATA software was used.

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6 + b_7x_7 + b_8x_8 + b_9x_9 + b_{10}x_{10} + b_{11}x_{11} + e$$

Where Y=SAVINGS, X1=AGE, X2=GENDER, X3=PLACE, X4=EDUCATION, X5=MARRIAGE, X6=INCOME, X7=SIZE OF THE FAMILY, X8=PERCEPTION OF SAVINGS, X9=OWN A PLAN, X10=FINANCIAL SITUATION, X11=CHILDREN (dependents), e=Random Error term b1-b11=Regression Coefficient.

4.DISCUSSION AND RESULTS

4.1 Gender Profile of Respondents

More than half of the respondents are male and around 34% are females. It appears that female participation in retail sector as sales person is less compared to males.

About 18 respondents from 53 sample size, don't save at all. Out of which 10 are males and 8 are females. Table below also shows that proportion of males and females are 35 and 18 respectively. It reflects that saving behaviour is more prominent in males.

4.2 Education background of employees

Around 43.4% of the respondents surveyed were graduates followed by 34% who were only 10th/12th passed. However, 20.8% of the respondents holds a postgraduate degree. There are significant number of people turning to job profiles of sales person because of reasonable wages and workplace conditions.

Table 3 Demographic profile of Respondents

Demographic Variables	Category	Total	
		Count	%
Gender	Male	35	66.04
	Female	18	33.96
Age	0-20 years	9	16.98
	20-25 years	25	47.17
	25-30 years	9	16.98
	30-35 years	8	15.09
	Above 35 years	2	3.77
Marital Status	Unmarried	37	69.81
	Married	16	30.19
Educational Status	Primary education	1	1.89
	10 th /12 th	18	33.96
	Graduation	23	43.40
	Postgraduation	11	20.75
Place	Resident	33	62.26
	Migrant	20	37.74
Family size	0-3	9	16.98
	4-6	33	62.26
	7-9	5	9.43
	Above 9	6	11.32
Work Experience	Less than 1 year	16	30.19
	1-3 year	19	35.85
	3-6 year	9	16.98
	6-9 years	4	7.55
	More than 9 years	5	9.43

Source: Primary Data

4.3 Place of Residence

63% of the respondents that is around 33 individuals reside in Varanasi. However, 37% of the employees working in retail outlets in area surveyed are migrants. It refers that there is considerable number of individuals that reside in Varanasi from different places only due to their job profile.

4.4 Experience in retail selling

9% of the respondents have been active as employees in retail sector for more than 9 years, while 30% mentioned that they have been active for 1 year or less. However largest share of 36% is represented by individuals holding work experience of 1-3 years.

4.5 Relationship between level of income and savings

The ability to earn more income continues to influence people into saving more. Many of the respondents who don't save felt that the most important reason for saving behaviour is the ability to earn more. Savings is the amount not spend for consumption. Respondents believed that savings and investment is a priority to them but due to low-income levels they are unable to save any significant amount. Their wages are just enough to carry out their monthly expenditures. Majorly the monthly wages of the respondents surveyed belong to the income slab of 10,000 to 20,000.

Table 1 Pairwise correlation coefficient of Variables

	Age	Gender	Place	Education	Family size	Income	Saving perception	Children	Marital status	Savings
Age	1.00									
Gender	-0.1690	1.00								
Place	0.0382	0.0265	1.00							
Education	0.2727	0.1063	0.0744	1.00						
Family size	0.0791	-0.0821	0.1863	0.1575	1.00					
Income	0.3613	-0.3248	0.0654	0.3048	-0.1073	1.00				
Saving perception	0.0660	-0.1428	0.3145	-0.1613	0.0764	0.0733	1.00			
Children	0.5783	-0.2452	0.1862	0.1777	0.0643	0.3841	0.1022	1.00		
Marital	0.6769	-0.2112	0.1354	0.1449	-0.0205	0.3904	0.1625	0.8227	1.00	
Savings	0.2403	-0.2900	0.1806	0.1871	0.1402	0.5464	0.4329	0.4728	0.4331	1.00

Source: Author

Table 1 shows values for pairwise correlation coefficient analysis for different demographic variables into consideration. The magnitude of the Pearson correlation coefficient determines the strength of the correlation. Although there are no hard-and-fast rules for assigning strength of association to particular values, some general guidelines to assess the strength of correlation are provided by Cohen (1988):

Coefficient Value Strength of Association

$0.1 < |r| < .3$ small correlation

$0.3 < |r| < .5$ medium/moderate correlation

$|r| > .5$ large/strong correlation

Pairwise correlation coefficient values are statistically significant for savings and income where p-value is less than 0.05 and correlation coefficient is 0.5464 which shows strong positive correlation. Representing that savings variable to be significantly influenced by level of income. Apart from

income, results also show that marital status, saving perception, no. of dependents (children), gender also crucially affect the saving pattern of individuals. However, gender variable is negatively correlated with saving behaviour showing that males save more compared to female respondents. While other variables such as marital status, saving perception, no. of dependents (children) correlates positively as significantly with saving behaviour.

Above analysis also indicates that level of income is also significantly correlated with gender, education, and marital status. Thus, this also indirectly affects the saving behaviour of the individual as income variable is strongly correlated with saving behaviour.

4.6 Saving Perception

84.6% of the respondents mentioned that they believe saving and investment as a priority to them. Only 15.4% mentioned that they don't find either saving or investment as priority in their lives. Thus, it majorly concludes that people who do not feel saving as important factor cannot be forced to save.

4.7 Regression Analysis

The regression equation to test the hypothesis that whether the demographic variable influence the saving behaviour of the employees of franchise retail outlets that consists of various independent variables such as age, gender, place, education, marital status, income level, size of the family, perception towards saving, possessing a savings plan, current financial standing, and dependents. The data collected from 53 respondents of various franchise outlets which was analysed in STATA reflects that age, income, possessing a savings plan and financial situation significantly affects the dependent variable of saving behaviour as p-value is significant at 5% level of significance. This concludes that we need to reject the null hypothesis and accept the alternative hypothesis that there is significant impact of demographic variables on saving behaviour of employees.

Table No.2 Regression Analysis of different independent variables on dependent Savings variable

SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0.858875							
R Square	0.737667							
Adjusted R Square	0.667285							
Standard Error	0.727664							
Observations	53							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	11	61.04543	5.549584	10.4809	8.95E-09			
Residual	41	21.70929	0.529495					
Total	52	82.75472						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.16668	0.397032	-0.41981	0.676815	-0.9685	0.635144	-0.9685	0.635144
X1 (age)	-0.36512	0.135776	-2.68915	0.010311	-0.63933	-0.09092	-0.63933	-0.09092
X2 (gender)	-0.03181	0.245231	-0.1297	0.897439	-0.52706	0.463449	-0.52706	0.463449
X3 (place)	0.107846	0.236351	0.456295	0.650586	-0.36948	0.585167	-0.36948	0.585167
X4 (education)	0.003099	0.151002	0.020525	0.983724	-0.30186	0.308054	-0.30186	0.308054
X5 (marriage)	0.48549	0.443697	1.094193	0.280257	-0.41057	1.381555	-0.41057	1.381555
X6 (income)	0.407455	0.142403	2.861282	0.006613	0.119866	0.695043	0.119866	0.695043
X7 (size of the family)	0.118284	0.131213	0.901469	0.372604	-0.14671	0.383274	-0.14671	0.383274
X8(perception of saving)	0.351599	0.329886	1.065821	0.292741	-0.31462	1.017816	-0.31462	1.017816
X9(own a plan)	1.037397	0.290424	3.572007	0.000922	0.450874	1.623921	0.450874	1.623921
X10(financial situation)	0.782495	0.330269	2.369269	0.022614	0.115504	1.449486	0.115504	1.449486
X11(children)	0.312754	0.220696	1.417127	0.164	-0.13295	0.758459	-0.13295	0.758459

4.8 Saving intentions of individuals

33% of the respondents mentioned that they save majorly for child's education, marriage and other such ceremonies of their children. While other 30.3% of the respondents opt saving habit to secure

their future or old age. Only 15.2% save for the sole intention of wealth creation. 21.2% of the respondents mentioned that they save for future contingencies and as emergency fund. Ability to save also depends on psychological behaviour of individuals that whether they consider living their life more on day-to-day basis or more like planning life ahead. Thus, above figure represents that 26% of the respondents are indifferent about their choice to live more from day-to-day basis or plan it ahead. Only 25% mentioned that they prefer to live more from day to day. Almost half of the respondents believe to plan ahead. 45% of the respondent surveyed were neutral about saving more for future or spending money today. Some respondents also revealed that due to their low level of income they are unable to save even if they are willing to. Mostly 45% of the respondents would rather save more the future over spending money today. About 40% of the individuals surveyed indifferent about their current financial standing. While equal proportions of respondents are satisfied and dissatisfied from their current financial standing. Income playing major role to describe saving potential of a individual also affect the behaviour of people to earn more money and ways to increase their level of income so that they can save more. Mostly 30% of the people are quite a bit willing to figure out ways to earn more money. While 19% of the respondents are desperately figuring out ways to make more money.

5. CONCLUSION AND SUGGESTIONS

It can be concluded that saving behaviour among employees in retail outlets can vary depending on a variety of factors, including their income levels, age, and financial standing. Some employees may prioritize saving a portion of their income each month to build an emergency fund or to work towards larger financial goals such as buying a home or starting a business. Others may struggle to save due to lower incomes, high expenses, or debt obligations. Employers can support their employees' saving behaviour by offering financial education and resources, such as retirement savings plans or access to financial advisors. Encouraging a culture of saving within the workplace can also help to promote better financial health among employees. Overall, promoting saving behaviour among employees can lead to greater financial stability and security, which can benefit both the employees and the employer in the long run. The study identifies demographic variables as key influencers of saving behavior in retail employees. Consequently, it proposes targeted financial education tailored to the specific needs of various employee groups based on demographics like age, income, and education level. Incentives for saving, such as employer matches or bonuses, and automatic enrolment in savings plans are suggested to encourage savings. Additionally, addressing income inequality through policies like minimum wage increases and tax credits for low-income workers is recommended to enhance financial stability and security among retail employees. Overall, these interventions aim to enhance financial well-being and security within this vital workforce sector.

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ENCOURAGING WOMEN: UNLOCKING THE POTENTIAL OF INDIAN FEMALE LABOUR FORCE PARTICIPATION

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ABSTRACT

In this research article, an effort has been made to examine the different obstacles for participation of women in Indian labour market such as Societal Norms and Cultural Barriers; Workplace Gender Bias; and Educational and Skill Empowerment. The current study is based on literature survey and makes recommendations for policy based on findings presented in this paper.

Keywords: *Female labour force participation, Societal Norms and Cultural Barriers; Workplace Gender Bias; and Educational and Skill Empowerment.*

INTRODUCTION

Under the banner of "Azaadi Ka Amrit Mahotsav," India is commemorating the progressive 75 years since gaining its independence and advancing the goal of ensuring that women are "Empowered women- Empowered Nation." Gender equality, the eradication of poverty, and inclusive economic growth are all directly impacted by investments made in women's economic empowerment. Whether they labour in enterprises, on farms, as entrepreneurs, as workers, or providing unpaid care at home, women contribute significantly to the economy (Women and Men in India 2022). India has made significant progress in a number of areas in the last several years, but the percentage of women in the labour force is an important issue that has to be addressed and coordinated efforts made. Many competent and educated women in India are still not employed, despite improvements in women's empowerment and education.

CHALLENGES OF FEMALE LABOUR FORCE PARTICIPATION

This article examines the barriers that prevent women from entering the workforce and offers solutions for enabling them to reach their full potential. Women's ability to engage in the labour market is determined by a number of economic and social factors that interact intricately at both the household and macro levels. According to the Periodic Labour Force Survey, both the male and female populations' LFPR for those aged 15 and over has been rising from 2017 to 2018. Nonetheless, in the age range of 15 years and above, the LFPR of the female population lags significantly behind that of the male population (77.2 for males and 32.8 for females in 2021-22). In comparison to rural settings, the difference between male and female LFPR is greater in metropolitan locations. Women's low labor force participation in India relative to men's may be caused by social factors, educational attainment, and gender discrimination in terms of pay and opportunity at work. Research from around the world indicates that a few of the most significant factors are urbanization, economic growth and its cyclical impacts, fertility rates and marriage age. Beyond these problems, the results are still influenced by societal norms (defined by the community that is dominated by men) that define women's place in the

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public sphere. We found there are three major challenges in Indian labour market as follows; Societal Norms and Cultural Barriers; Workplace Gender Bias; and Educational and Skill Empowerment.

Societal Norms and Cultural Barriers: Women are frequently discouraged from seeking employment outside the home by ingrained cultural biases and societal standards. One of the biggest barriers is still the conventional belief that a woman's major duty is to take care of the family and manage household duties. Mehrotra (2015) examined decline rate of low female labour force participation in India in a period of its rapid economic growth. The primary causes of the low participation rate of female labour, according to his research, are the unpaid non-economic work burden, improper measurement precision in distinguishing between contributing family work and domestic duties, inadequate skill training, a lack of support for women entrepreneurs, occupational segregation, informality of work, workplace challenges, and global demand for products of labour-intensive industries, particularly in urban areas. According to Fletcher et al. (2017), marriage, losing high potential earnings and experience in their early careers, and socioeconomic factors are some of the reasons Indian women withdraw from the labour market. Once employed, women are also frequently at a disadvantage because pay is less equitable for men and women in fields where women have higher relative representation. However, they also suggested that some fields with significant female-friendly policies, such as quotas, equal pay, and work close to women's homes, have successfully attracted female workers. According to Chaudhary and Verick (2014), the most significant factors influencing the participation of women workers in India are religion, region, socioeconomic status, and degree of decision-making ability. He noted that the low participation rate of women in the labour market is a result of the numerous obstacles that women still face in order to enter the workforce and obtain decent work. These obstacles include caregiving responsibilities, a lack of skills, restricted mobility, safety concerns, and choice of work, working conditions, employment security, wage parity, discrimination, and juggling competing workloads.

According to Bhalla and Kaur (2011), India has one of the lowest rates of urban women's labour force participation worldwide. The National Sample Surveys (NSS) data for the years 1983, 1993–1994; 1999–2000; and 2004–2005 were utilized. They discovered that whereas spouse education had a negative impact on the rate of female labour force participation in urban India, income growth and female education had a positive influence. They clarified that the relationship between LFPR and income growth is an inverted U. If they marry well educated men who make good money, women do not want to work. They also mentioned the prejudice against women when it comes to joining the workforce. The male education effect is to blame for this; urban women experience lower LFPR when their male education levels are higher. However, there is virtually little evidence of discrimination against women after they enter the workforce. There is ample evidence that women have greater control over reproductive decisions in addition to the absence of discrimination in the workplace.

Restricted Education Access: Although the percentage of women who are literate has increased, it is still difficult for women, particularly those who live in rural regions, to get high-quality education. It is challenging for women to obtain well-paying employment prospects without the necessary education and skill development.

WORKPLACE GENDER BIAS

In many organizations, racism and discrimination still exist, which prevents women from advancing in their careers. Studies on wage discrimination and women's labour force participation in the Indian labor market reveals a complex interplay of cultural, economic, and social factors. Female

participation is discouraged by unfriendly circumstances caused by gender-based harassment, unequal remuneration, and little prospects for advancement. Padhi (2019) and Ara (2021) provide empirical evidence of gender-based wage discrimination, with Ara (2021) specifically attributing around two-thirds of the pay gap to labor market discrimination. India is the country with the lowest gender parity, according to Javeed and Manuhaar (2013) (the wage gap between men and women is considerable). This demonstrates unequivocally that, in India, the average salary for a woman is less than one-third that of an average man. Women clearly put in a far greater amount of effort than males do, both in paid and unpaid roles. Men and women who perform the same or comparable labour are shown to be subjected to pay discrimination. Furthermore, according to the International Labour Organization (2007), discrimination extends beyond differences in pay to the value of labour. Srivastava and Srivastava (2010) discovered that a number of factors, such as the type of job, low pay relative to men, unfavorable working conditions, long work hours, a lack of social security, and few holidays, contribute significantly to the downward trend in the employment of educated women. Female workers faced higher discrimination in developed regions than in less developed ones, as demonstrated by Das (1985).

These findings underscore the need for comprehensive policy interventions to address the systemic barriers that hinder women's equal participation and fair treatment in the urban labor market in India.

EDUCATIONAL AND SKILL EMPOWERMENT

It is imperative to make educational investments for females in order to end the cycle of gender inequity. Equal educational opportunities can be provided by government programs and collaborations with the private sector, equipping women with the knowledge and abilities needed for fulfilling careers. Ghani (2013) and Deininger (2022) both found that political empowerment, particularly through the reservation of leadership positions for women, can positively impact women's access to job opportunities and their participation in the labor force. Deininger (2022) and Afridi (2016) both highlight the positive impact of women's participation in the labor force on their income, influence on household decisions, and their children's education. However, Mukherjee (2015) points out that despite increased educational access, women in India still face challenges in accessing equal labor market opportunities. West (2006) further emphasizes the importance of employment in women's empowerment, with working women having a greater likelihood of higher empowerment. These studies collectively underscore the need for gender-sensitive public policy and broader measures of empowerment to address the complex relationship between education, employment, and empowerment for women in India. According to Sorsa et al. (2015), female labour engagement in India is adversely associated with income and education levels. In general, social and cultural factors are what prevent women from entering the workforce. The involvement of women in the labour market is positively impacted by financial development and inclusion. *The main causes of India's low level of female participation, according to Kapsos et al. (2014), are rising household income, increased attendance in educational institutions, changes in measurement methodology related to some types of female employment, and a lack of job opportunities in the labourmarket.* According to Verick (2014), education boosts women's expectations and the reservation wage in developing countries, but it also has to be accompanied by job development. To find more women participating in the workforce, the quality of jobs and access to secondary and higher education should be improved. Fletcher (2017) further emphasized the importance of vocational training in increasing women's likelihood of working, while Chaudhary (2014) highlighted the role of education, particularly post-secondary schooling, in influencing women's labor market outcomes. Studies

consistently shows a positive relationship between vocational training and female labor force participation in India (Bairagya, 2021; Fletcher 2017).

This is especially critical in light of the nation's declining and stagnant rates of female labor force participation (Fletcher et al., 2017). It has been discovered that one of the main factors influencing the likelihood of women working is the availability of vocational training (Fletcher et al., 2017). But given the low number of people with formal vocational training, particularly among women, policies encouraging female participation in such training are clearly needed (Bairagya, 2021). Women's employment outcomes are also significantly influenced by education, particularly post-secondary education (Chaudhary, 2014). It has been discovered that the National Rural Employment Guarantee Scheme in India has a positive effect on child education and female labor force participation (Afridi, 2013). All of these results point to the possibility that skill empowerment—whether it comes from political representation or education and training—can be a major factor in raising the participation rate of Indian women in the labor force.

SOME POLICY IMPLICATIONS

In order to increase the percentage of women in India's labor force, policymakers should adopt a multifaceted strategy that tackles workplace discrimination, societal norms, and educational empowerment. Education reforms should prioritize providing vocational training customized to women's needs, removing financial barriers, and implementing gender-inclusive education. Culturally aware awareness campaigns that question gender stereotypes can play a significant role in changing public perceptions.

Enforcing and enhancing laws pertaining to gender equality, supporting diversity initiatives, and facilitating women's economic empowerment via financial inclusion and entrepreneurship programs are all critical in the workplace. Social welfare programs that provide access to cheap childcare and healthcare will assist women in juggling their obligations to their families and their careers. Effective implementation and ongoing improvement of these policies will be ensured by cooperation between the government, non-governmental organizations, and international partners, as well as by strong monitoring and evaluation mechanisms. This will promote a more welcoming and encouraging environment for women to enter the workforce.

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THE EXTENT OF INDIA'S MULTIDIMENSIONAL POVERTY

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ABSTRACT

India's goal to decrease poverty in all its manifestations by half by 2030, or SDG 1.2, demonstrates the country's commitment to creating a future that is more inclusive and equitable. Poverty continues to be a major global issue that impacts a large number of people worldwide, including almost 200 million people in India alone.

The Multidimensional Poverty Index (MPI), which offers a thorough knowledge of poverty beyond only income levels, is used as a measurement instrument in this research. The many aspects of deprivation that people may encounter—such as living standards, health, and education—should be taken into account. The paper draws on theoretical research that includes a review and examination of pertinent scholarly works as well as current theories. Indeed, despite notable advancements in the fight against poverty, India continues to face difficulties and inequalities.

Keywords: *Multidimensional poverty, SDGs, Inequality*

INTRODUCTION

Poverty remains a significant global problem that impacts a vast number of people globally, with around 200 million people living in India alone. India can demonstrate its will to eradicate poverty and improve the standard of living for its citizens by using its position to promote inclusive growth and development. India has the potential to inspire other nations to adopt comparable measures by showcasing effective strategies for reducing poverty and achieving quantifiable results. More people escaping poverty would likely lead to more consumer spending, which would increase demand for goods and services, support job growth, and increase employment.

India's ability to entice others and exercise influence through its policies, values, and culture may be enhanced by demonstrating its commitment to equitable development and the end of poverty. The Sustainable Development Goals (SDGs) have provided countries like India with a defined framework for focusing on poverty reduction and fair growth. India is working toward SDG 1.2, which is to reduce poverty in all of its forms by at least half by 2030, as a sign of its commitment to building a more equitable and inclusive future. At the global level, India can advocate for policies that assist other countries in reducing poverty, such increased development assistance and modifications to the global financial system that would facilitate credit availability.

LITERATURE REVIEW

The conceptualization of poverty can be approached in four distinct ways, as outlined by Olowa (2012). Lack of Access to Basic Needs/Goods approach views poverty as a condition resulting from the inability to access essential goods and services necessary for a decent standard of living. Result of Lack of or Impaired Access to Productive Resources emphasizes the role of access to productive

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resources, such as land, capital, and skills, in determining one's economic well-being. Outcome of Inefficient Use of Common Resources is seen as a result of the inefficient utilization of resources that are commonly available to a community or society. Result of Exclusive Mechanisms suggests that poverty is a consequence of exclusive mechanisms within society, where certain groups or individuals are systematically excluded from opportunities and resources.

Alkire and Foster (2011) made an effort to provide a workable method for determining who is impoverished and quantifying overall poverty. They examined the benefits, drawbacks, and misconceptions surrounding multidimensional poverty assessment in an effort to shed light on the controversy and spur more investigation. In addition to providing an understandable explanation of their measurement methodology—which includes an aggregation step based on the conventional Foster, Greer, and Thorbecke (FGT) measures and a "dual cutoff" identification step that views poverty as the state of being multiply deprived—they established the general definitions of unidimensional and multidimensional methodologies for measuring poverty. Measurement and estimation of multidimensional poverty have been conducted by a number of researchers (Anand and Sen 1997; Chiappero-Martinetti 2000; Bourguignon and Chakravarty 2003; Gordon et al. 2003; Qizilbash 2004; Chakravarty and D'Ambrosio 2006; Alkire and Foster 2008; Antony and Rao 2007; Calvo 2008; Wagle 2008; Jayaraj and Subramanian 2010; Alkire and Santos 2010; Alkire and Foster 2011; Mohanty 2011; Mishra and Ray 2013; Alkire and Seth 2015). The majority of these research defined multi-dimensional poverty using the factors of quality of living, health, and education.

OBJECTIVE

1. To evaluate Multidimensional Poverty Index (MPI) status of India

RESEARCH QUESTION

1. What is the Multidimensional Poverty Index (MPI) status of India?

THE METHODOLOGY

The study employs a dual approach, combining the insights derived from existing data with a theoretical foundation. The use of external secondary data sources enhances the empirical basis of the study, drawing on real-world information. The study utilizes data that has already been collected by external sources, such as government statistics, market research reports, and data from international organizations like the IMF, World Bank, UN, and WHO. The data encompass both global and national perspectives, covering various aspects relevant to the study. Academic journals, publications, and publicly accessible databases serve as additional external sources contributing to the study. The investigator aims to identify, conceive, and formulate theoretical frameworks and explanations related to the study's goals. The study involves a comprehensive examination of existing literature and current theories that are pertinent to the study's subject. This process helps in gaining a solid understanding of the topic. Through a rigorous review and synthesis of previous research, the investigator strives to develop fresh insights, new viewpoints, and a comprehensive understanding of the subject matter.

THE GLOBAL MULTIDIMENSIONAL POVERTY INDEX (MPI): INDIA

The Oxford Poverty and Human Development Initiative (OPHI) and the United Nations Development Programme (UNDP) collaborated to develop the worldwide Multidimensional Poverty Index (MPI) for India.

Table 1: India Summary Results

Area	MPI- Multidimensional Poverty Index (range 0 to 1)	H-Headcount ratio of Multidimensional Poverty (%)	A- Intensity of Poverty (%)	Headcount ratio of Severe Poverty (k>50%) (%)	Vulnerability to Poverty (20%≤k≤33.32%) (%)
Rural	0.089	21.24	42.1	5.65	22.33
Urban	0.023	5.52	40.88	1.1	10.5
National	0.069	16.39	41.98	4.25	18.69

Source: Global Multidimensional Poverty Index (MPI) Databank 2023

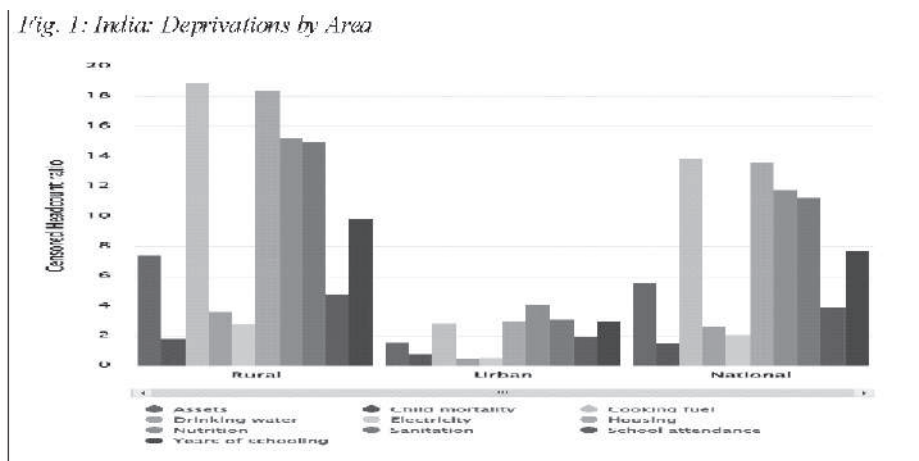
The Multidimensional Poverty Index (MPI) for India is summarized in the table and is divided into three categories: national, rural, and urban.

The following are the main findings from the analysis:

MPI for Rural Areas Greater than Urban MPI: In comparison to the urban MPI value (0.023), the rural MPI value (0.089) is greater. This suggests that the prevalence of poverty is higher in the rural than in the urban populations.

Higher Rural Headcount Ratio: According to the table, the headcount ratio in rural regions is 21.24%, whereas it is 5.52% in urban areas.

Greater Intensity of Deprivation in Rural regions: According to the table, the intensity of deprivation in rural regions is 42.1%, compared to 40.88% in urban areas.



Source: Global Multidimensional Poverty Index (MPI) Databank 2023

The examination as a whole emphasizes the stark differences in poverty that exist in India's rural and urban areas. According to the data, a greater percentage of people living in rural areas than in urban areas experience severe poverty or are vulnerable to it. This shows that poverty is more concentrated in rural areas. Reducing general poverty and fostering more inclusive development in the nation may be greatly aided by addressing these regional discrepancies and putting specific policies in place to improve rural regions.

A general pattern observed in many nations, including India, is that the rural population is more

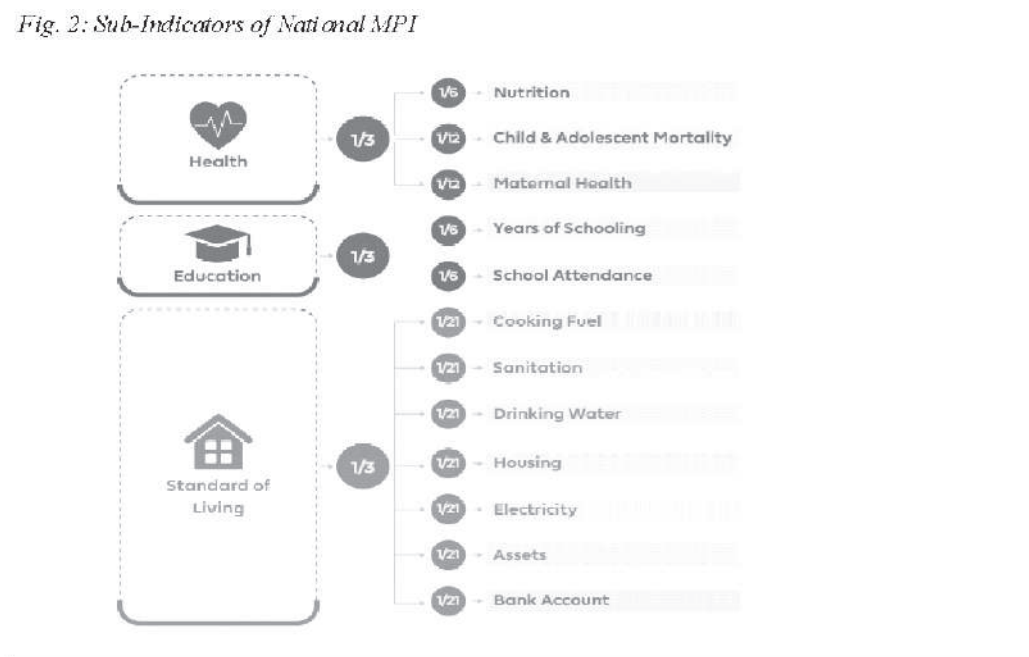
deprived than the urban population in all measures. Many variables, such as restricted access to basic amenities, infrastructure, healthcare, education, and economic possibilities in rural areas, contribute to this deprivation gap between rural and urban areas. Targeted actions and special attention are needed to address the deprivation gap between rural and urban areas.

NATIONAL MPI OF INDIA

The national MPI of India and the global MPI model are nearly equivalent with respect to the ten indicators. These provide for a comprehensive assessment of poverty since they include information on living circumstances, health, and education, to name just a few. Moreover, two additional variables are included to India's model based on the country's specific national interests: bank accounts and maternal health.

Adopting the MPI and tailoring it to fit Indian conditions will help the country learn a great deal about the complex nature of poverty there. With this strategy, policymakers may more successfully focus interventions at the individual deprivations that impede people's overall well-being and identify populations that are at risk.

Fig. 2: Sub-Indicators of National MPI



Source: National Multidimensional Poverty Index 2023

INDIA'S INITIATIVE TO LOWER POVERTY

The estimates are calculated using information from the National Family Health Survey (NFHS-5), which was performed between 2019 and 2021, in the context of India's national MPI. The NFHS is used for evaluating poverty and its multifaceted character since it is a large-scale, nationally representative survey that gathers data on numerous areas of population and health.

India's national MPI tracks progress and pinpoints areas that need attention and development by using data from the NFHS to give current and trustworthy information on poverty trends. The implementation of data-driven approaches guarantees the effectiveness and impact of poverty

reduction initiatives by facilitating the development of evidence-based policies and focused interventions.

Table 2: Snapshot of Multidimensional Poverty in India

Year	Headcount Ratio (H)	Intensity of Poverty (A)	MPI (H*A)
2019-21	14.96%	44.39%	0.066
2015-16	24.85%	47.14%	0.117

Source: National Multidimensional Poverty Index 2023

Table 3: MPI of India-Rural & Urban

Year	Rural			Urban		
	MPI	Headcount Ratio (H)	Intensity of Poverty (A)	MPI	Headcount Ratio (H)	Intensity of Poverty (A)
2019-21	0.086	19.28%	44.55%	0.023	5.27%	43.10%
2015-16	0.154	32.59%	47.38%	0.039	8.65%	45.27%

Source: National Multidimensional Poverty Index 2023

One noteworthy finding is that the Multidimensional Poverty Index (MPI) score decreases more quickly in rural than in urban settings. It suggests that among India's rural areas, initiatives to reduce poverty have had a greater influence between 2015–16 and 2019–21. Over the course of these four years, the incidence of poverty in rural regions decreased by almost 13.31 percentage points, from 32.59% to 19.28%. Conversely, the percentage of the population living in multidimensional poverty decreased from 8.65% to 5.27% in urban areas, a decrease of almost 3.38 percentage points.

Policymakers may improve their tactics and guarantee more fair development across regions by analysing these differences in poverty reduction between rural and urban areas. The Sustainable Development Goals (SDGs) may be achieved more quickly and sustainably by focusing interventions on the unique issues that each region faces in order to build a more prosperous and inclusive society for everyone.

CONCLUSION

Over the years, India has really made great strides toward reducing poverty. The nation has put in place a number of programs and laws designed to reduce poverty and enhance the welfare of its people. India's initiatives have received significant recognition on the international scene, despite the fact that there are still issues and discrepancies to be resolved. India's accomplishments and lessons learned in reducing poverty may act as an example and source of inspiration for other nations dealing with comparable issues. India should encourage cooperation among G20 members to create more effective policies and programs for the elimination of poverty and inclusive economic growth by exchanging best practices and interventions that have proven beneficial.

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special Article

**IMPACT OF THE AYODHYA DEVELOPMENT PLAN ON INCOME,
EMPLOYMENT, AND LIVELIHOOD**

Anup Kumar Mishra*

BACKGROUND OF THE STUDY

Temples and development are traditionally seen as mutually exclusive but the making of the Ram Mandir at Ayodhya has proved that they can actually be mutually inclusive. The Ram Temple is not just about religion, but business and economy too. Besides the temple complex, Ayodhya has attracted funding for a host of developmental and infrastructural projects which will not only boost tourism in and around the city but also turn the city into a regional growth hub that will spur business and economic activity in the wider region due to enhanced connectivity. A mega tourist city of global standards which will attract lakhs of tourists daily is bound to revolutionise the economy of more than a dozen neighboring districts.

The most sacred pilgrimage sites for Hindus - that is Varanasi and Rameshwaram are situated in UP and TN respectively. With Ayodhya added on along with Varanasi, the tourist inflow will spike significantly. With this, more people will travel by flights, buses, trains etc, money will be in flow end to end, movement of money means movement of economy, that means inclusive growth. Ayodhya will now become hotspot for jobs because of large-scale construction of hotels, hospitals and other infrastructure required to be built to accommodate huge inflow of tourists, not just during construction, people are needed to continuously manage the infrastructure.

KEY FEATURES

Pilgrimage: Religiously-driven tourism was undoubtedly a primary economic driver, with countless devotees visiting Ayodhya throughout the year. However, the extent and economic impact beyond specific pilgrimage seasons varied.

Agriculture: Farming held significant importance, with rice, wheat, and sugarcane being key crops. Despite contributing to the local economy, agricultural income remained dependent on weather conditions and market fluctuations.

Limited Industry: Industrial development was relatively limited, with small-scale units in food processing, textiles, and handicraft production forming the primary industrial infrastructure.

Infrastructure Challenges: Inadequate infrastructure, including limited transport options and lack of proper sanitation, further constrained economic growth.

Ayodhya's pre-construction economy had its strengths and limitations. While religious tourism and agriculture played key roles, factors like limited industrial development and inadequate infrastructure presented challenges. Analyzing its exact economic standing with absolute certainty is difficult due to data limitations and differing viewpoints. However, understanding the multifaceted context is crucial for assessing the potential impact of the temple construction on the city's current and future economic development.

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CHALLENGES AND LIMITATIONS

Limited Data: Comprehensive economic data specific to Ayodhya, especially before the temple construction, is scarce. National and regional data might not accurately reflect the local microeconomic situation.

Dynamic Economy: Economies evolve over time, influenced by various factors like national trends, local initiatives, political events, and social movements. Isolating the impact of pre-construction circumstances on the current economy is challenging.

Subjective Interpretations: Different analyses and reports draw contrasting conclusions due to varying methodologies and considerations.

Prevalent Narrative: The dominant narrative portrays Ayodhya's pre-construction economy as relatively stagnant, primarily reliant on religious tourism and agriculture. Limited industrial development and infrastructure, coupled with the prolonged legal dispute over the disputed site, are often cited as restricting economic growth.

Differing Perspectives: Some experts argue that despite these challenges, Ayodhya had a thriving informal economy fueled by small businesses catering to pilgrims and agricultural activities. They highlight the existence of handicraft industries, textile trade, and a robust local market.

DEVELOPMENT PLAN IN AYODHYA

Development plan of Ayodhya including Ram Temple construction could be seen the following table. Overall we could trace 24 items of expenditure plan till the end of 2023.

Table: 1 Total amount and Items of Development in Ayodhya

S.N	Items of Development	In Crore Rupee
1	Ram Temple Construction	1000
2	Phase 1 of Aydhya Dham Station	241
3	Mahrshi Valmiki International Airport	1462.97
4	Spine Road upto	844.93
5	Rajshri Dashrath State Medical College	245.64
6	Shiropari Underline	167
7	Lata Mangeshkar Chauk	75.26
8	Railway Overbridge	74.24
9	Bhati Path	68.04
10	Dharm Path	56.03
11	Roads and Sever line reconstruction	47.86
12	Construction of Four Lane Road	44.98
13	Business Complex	42.75
14	Construction of Dyke	39.63
15	Guptar Ghat	37.10
16	Ram ki Paudhi	24.81
17	Laksman Kunj Smart Vehicle Parking	37.08
18	Public Utilities work in Surya Kund	14.87
19	Seeta Lake	02.5
20	Construction 84 Koshi Parikrama Path	7000
21	Parikrama Path of Panchkoshi and Cahudaha	1500
22	New City in 1852 Acre Land	3000
23	Ayodhya- Jagadishpur Highway	1500
24	67 Km Ring road	4000
25	Total Budget	21,526.67

Source: Government and Published Data

Table 1 shows the total prospective expenditure and Items of Development in Ayodhya till the end of 2024 but redevelopment of Ayodhya as per Master Plan 2031 will be completed over 10 years with an investment of over Rs 85,000 crore to upgrade the holy city to meet the requirement of a daily footfall of around 3 lakh after the inauguration of the Ram Temple this month, As per estimates, the city, after the full completion of the Ram Mandir and redevelopment, is likely to have a 1:10 ratio of residents and tourists, indicating its huge potential to attract pilgrims. Sources said the greenfield township will have provisions for state guest houses, hotels to cater to all types of visitors and commercial complexes to meet the requirements. Places of historical prominence attract demand by default, executives say. Data by the UP Tourism Department shows that while 325,000 tourists visited Ayodhya in 2021, the number surged to 23.9 million the following year.

A total of 37 state and national agencies are already working in tandem to give a new look and feel to the city with a budget of Rs 31,662 crore. While NHAI is executing projects worth Rs 10,000 crore, the public works department of UP government has also taken up 34 projects worth close to Rs 7,500 crore. Airport, railways and highways are key parts of this upgrade.

Development and infrastructure projects have been categorised into eight broad themes – Aesthetic Ayodhya, Clean Ayodhya, Efficient Ayodhya, Accessible Ayodhya, Experiential Ayodhya, Modern Ayodhya, Cultural Ayodhya and Healthy Ayodhya.

FMCG companies and food services chains are making a beeline for Ayodhya after the Ram temple consecration on January 22, which they said is expected to lead to 8-10-fold surge in tourism and floating (visiting) population of the city amid its global branding and facelift.

RIPPLE EFFECT ANALYSIS OF RS. 21000 INVESTMENT

Analyzing the ripple effect of Rs. 21000 (table 1) for development process and investment we estimate that the initial investment of Rs. 21,000 has a significant ripple effect on the economy. The direct spending impact is Rs. 42,000, as the recipients of the investment spend the money on goods and services. This spending, in turn, has an indirect impact on other businesses, as they experience increased demand for their products and services. This indirect spending impact is estimated to be Rs. 63,000. Finally, the increased economic activity leads to induced spending, as people have more money to spend in general. This induced spending impact is estimated to be Rs. 75,600. The total economic impact of the Rs. 21,000 investment is Rs. 201,600. This means that the investment has more than tripled in size as it has flowed through the economy. This is just a simplified example, and the actual ripple effect of an investment can be much larger or smaller depending on a number of factors, such as the type of investment, the economic conditions at the time, and the specific spending patterns of the recipients of the investment.

Overall, this analysis shows that even a relatively small investment can have a significant impact on the economy. This is why investments are so important for promoting economic growth and development. provided, it's difficult to give a precise estimate of the employment creation potential from investing 21,000 rupees in a city development program with a ripple effect of 63,000 rupees.

FACTORS INFLUENCING EMPLOYMENT CREATION

Type of City Development Program: The specific program you invest in will significantly impact employment creation. Programs focused on infrastructure development, like building roads or bridges, tend to have higher direct employment during construction but lower long-term job creation. Conversely, programs promoting tourism or small businesses might create fewer immediate jobs but more sustainable employment in the long run.

Local Labor Market: The existing skills and availability of workers in Prayagraj will influence how

many new jobs are created. If the program requires specialized skills not readily available locally, it might rely on hiring from outside, limiting local employment benefits.

Multiplier Effect: The ripple effect you mentioned (63,000 rupees) suggests the investment will generate additional economic activity beyond the initial 21,000 rupees. This additional activity can create jobs in various sectors like transportation, retail, and services. However, the actual multiplier effect can vary depending on the program's type and how effectively it connects with the local economy.

EXPECTED EMPLOYMENT

The low-impact scenario assumes a conservative estimate of employment multipliers and limited spillover effects to other sectors which may be between 5 to 30 lakh.. The medium-impact scenario reflects a more moderate scenario with moderate multipliers and spillovers which may be 10 lakh to 80 lakh . The high-impact scenario considers a more optimistic situation with high multipliers and significant indirect job creation which could be estimated between 15 lakh to 110 lakh. It is important to remember that these are just estimates, and the actual employment generation could be higher or lower depending on the specific circumstances.

UTTAR PRADESH GOVERNMENT'S PLAN FOR EMPLOYMENT GENERATION

The state government has prepared a vision document for Ayodhya to create four lakh direct jobs and eight lakh indirect jobs in the city. The Ramayana Spiritual Theme Park on 2,300 acres, a tourism facility center, and an international museum are also a part of it. In addition, Sri Ram Janmabhoomi Tirth Kshetra Trust executing Sri Ram Mandir plans to construct world-class pilgrimage projects such as the 'Ramayan campus' in 500 to 1,000 acres with miniature forms of Ayodhya, Janakpur, Dandakaranya forest, Lanka, river Ganga, and even sea. According to the trust, devotees will get a feel of the Ramayana era when they visit the campus.

The construction project itself generated considerable temporary employment for skilled and unskilled workers. This included roles in construction, transportation, logistics, and various auxiliary services. While construction will eventually end, its ripple effects may sustain some jobs longer. Ayodhya has already seen a surge in religious tourism since the construction began. This influx translates to increased demand for hotels, restaurants, transportation, and souvenir shops, potentially creating new jobs and boosting income for existing businesses.

Infrastructure development: The temple construction likely spurred infrastructure improvements in Ayodhya, such as improved roads, sanitation, and communication networks. This can attract further investment and businesses, leading to more job opportunities.

Spiritual significance: For many Hindus, the temple's completion holds immense spiritual significance, which could inspire greater donations and philanthropic activities, benefiting community development and potentially leading to the creation of new social enterprises and livelihood options.

ADDITIONAL CONSIDERATIONS

Investment Duration: The time frame for the program to achieve its full impact, including job creation, is crucial. Short-term projects might create temporary jobs during construction or implementation, while long-term programs might have a more sustained impact on employment.

Indirect Job Creation: Besides direct jobs in the program itself, consider the potential for indirect job creation through supporting businesses and services. For example, a new tourism program might create jobs in hotels, restaurants, and transportation, even if the program itself doesn't directly employ

many people.

EXPECTED INCREASE IN DEVOTEES AND TOURISTS AND ITS ECONOMIC IMPACT

The present study is interested in the total spending of 20 crore tourists (expected in next three years) with an average expenditure of Rs. 3000 each. If each tourist spends Rs. 3000, then 20 crore tourists would spend a total of: 20 crore tourists * Rs. 3000/tourist = Rs. 600,000 crore

That's a massive amount of money and to put it in perspective, Rs. 600,000 crore is equivalent to approximately 8.2% of India's GDP in 2022-23 (estimated at Rs. 73.5 lakh crore).

Over 8 times the annual budget of the Indian Railways in 2023-24 (Rs. 73,671 crore).

Enough to fund the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) for over 5 years (assuming an annual budget of Rs. 1 lakh crore).

It's important to note that this is just an estimate, and the actual spending of tourists can vary depending on several factors, such as:

Type of tourism: Budget travelers will obviously spend less than luxury travelers.

Length of stay: Tourists who stay longer will naturally spend more.

Destination: Costs can vary significantly between different tourist destinations in India.

Time of year: Peak season travel is typically more expensive.

Therefore, the actual spending of 20 crore tourists could be more or less than Rs. 600,000 crore depending on these factors.

It is difficult to estimate precisely how much employment 6 lakh crore rupees circulated over 3 years would generate, as the impact depends on various factors like:

Types of sectors receiving the circulated money: Different sectors have varying employment multipliers, meaning the number of jobs created per unit of investment can differ significantly. For instance, infrastructure spending might generate more direct jobs in construction compared to investments in technology or finance.

Spending behavior of recipients: How individuals and businesses receiving the money spend it can influence employment generation. Spending on local goods and services might create more local jobs compared to importing goods or saving the money.

Overall economic conditions: The existing economic climate, including unemployment rates and economic growth, can affect how effectively the circulated money stimulates job creation.

THE GROUND REALITY

According to local property dealers, there is hardly any land left to buy in Ayodhya. The rates in the outer areas, where the rates should have been around ₹ 3,000, have gone up to ₹ 6,000 to ₹ 7,000. Around the Ram Mandir, there is no land available. If there is, the rates are exorbitant, and a person can get whatever they ask for. Data from Ayodhya's Stamp and Registration Department shows that in 2018-19, around 9,000 properties were sold till November. This year, the corresponding figure has more than doubled. Till November, 20,067 properties have been sold this year, data shows. The prices have been peaking as the date of inauguration approaches. The revenue generated by the department has risen to ₹ 15,631.33 lakh up till November 2023 from around 10,000 lakh in 2018-19. The Department's revenue receipt for November 2023 in terms of per cent hike was 109 per cent – the highest in the State.

CHALLENGES AND CONSIDERATIONS

Sustainability: The initial surge in activity might not be sustainable in the long run. Attracting new businesses and industries beyond religious tourism is crucial for long-term economic growth and

diversification.

Skill mismatch: The skills required for construction may not necessarily align with the needs of emerging industries. Investment in skill development is crucial to ensure local residents reap the benefits of new opportunities.

Inequality: Increased tourism and economic activity can exacerbate existing inequalities within the community. Equitable distribution of benefits and ensuring inclusivity in development plans is essential.

Environmental impact: Large-scale projects can have environmental consequences. It's important to implement responsible practices and consider long-term ecological sustainability.

Data and Research:

Estimating the precise increase in income, employment, and livelihood is difficult without detailed data and reliable research. Some sources suggest significant increases in tourism and economic activity, while others express concerns about the sustainability and inclusivity of these gains. More research is needed to paint a comprehensive picture of the temple's long-term impact on Ayodhya's economy and society.

CONCLUSION

The construction of the Ram Mandir and developmental plan in Ayodhya has not only paved the way for the socio-economic transformation of the city but has also ushered in a civilizational resurgence. The Ram Mandir is expected to attract millions of devotees from across the country and the world, which will lead to an increase in tourism and provide a boost to the local economy.

If executed as per the vision, Ayodhya could become a modern example of a temple-based economy which may boost the economic and cultural revival of other pilgrimage destinations in India.

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