Role of Female in Workforce (A Case Study of Kishanganj)

Nilu Farhat Assistant Professor in Economics MDDM COLLEGE,B. R. A BIHAR UNIVERSITY MUZAFFARPUR 842002 Introduction:

The phenomenon behind the socio economic structure of Indian economy is very peculiar, evidences represented that second largest human capital resources fond abundantly in India but still it counts in a backward country. Survey & Analysis suggests that a big pie of human capital that is female work force is still mirage in a desert. The persistent decline in female employment rate in India with respect to economic growth is a puzzling phenomenon. If we remove the gap of demarcation between male and female and accomplish both as human resources then, this phenomenal activity will accelerate the growth of economy. This research paper explores the relationship between female labor force participation rate (LFPR) and economic growth and development (inclusive) of Bihar. The focus area of this study is the state of Bihar (A case study of Kishangani); A rural part of India. Studies depicted that India is one of the backward country in the world, in which Bihar is the most backward and poor state in spite of abundant natural resources and human capital, and that of Kishangani is least literate and backward district. This research paper analyses why female labor force participation rate (LFPR)_f is steeply declining in Kishanganj in spite of a big chunk of human capital (female) resides here? In spite of lots of government initiative for the upliftment of parsimonious status of female has been initiated but still they are invincible. Especially, the status of Muslims and Schedule castes lag behind the scope and opportunities available for them. The parsimonious status of female always been a debatable question, but still discriminatory norms of society that thwarted the magnificent role of women in participation and access to modernization has not been resolved yet. Many researchers' reveals that the economic development of Bihar converges towards the 3'S factors that are Socio-economic, Socio-culture, & Socio-religious that exists since past and which influence the proximate reasons as mentioned in literature. The axiomatically backwardness of Bihar is its inability to break-down the trap of vicious circle of its socio structure; Which is a matter of concern for the policy makers. Our main findings triangulate that a number of policy initiatives can stimulates female economic participation into this state. Ignominy of this state is limited opportunities and inability to accrue maximum benefits by utilizing the limited resources with efficiency. The survey area of my research is a district of Bihar, Kishanganj. The number of rural households is 3, 06,497 and 31,948 are urban households. Sample size (384) for rural and urban (380) is calculated by using formula for estimation of sample size, detail calculation is mentioned under methodology. Since, time is limited for the study therefore sample size will be decreased as per required within the stipulated time frame. The survey area is Muslim dominance where 67.98% are Muslim population and 31.43% are Hindu, other religion is only 0.59% as per census 2011 report. The focus area of this study is to analyze the role of Muslim female in work participation (LFPR¹⁾ and its comparison with Muslim male and Hindu female. The gap between them is the key findings and the data analysis will help to measure it, and further for suggestions. The female labor force participation rate and its relation with growth and development of Kishanganj are measured by GRP² (Gross regional Product) and development by socio-economic factor i.e. education, health and standard of living. The empirical study on the education level of Muslim female with relation to the rate of work participation (WPR³) is the core analysis of this study. Keywords: 1 LFPR: Female labour force divided by total working population (*Female labor force= actually working+ available for/seeking for job*)

2 GRP: Measure the value of the flow of goods and services produced in a given period in a given region.

3 WPR: Actual working population

Importance:

"Females are the mirror of an economy, and its spectrum of reflection depends on, how efficiently it is being polished".

An ideal economy in which Health, Wealth and Education are equally distributed is the goal of any economy. In this ideal economic structure every individuals get the equal pie of benefits. Similarly, we images India as a vantage point of ideal economy. But the truth is out of the way in perspective of India. In India wealth is not equally distributed even a big chunk of wealth is concentrated into the hands of riches. According to the Indian development report – the 77% of the total national wealth is hold by only 10% of the total Indian population. According to the Forbes world report, there are 140 billionaires in this year 2021. Their number has increased from 9 in 2000 to 102 in 2020. India is estimated to produce 70 new millionaires between 2018 and 2022 every day. In spite of this mind shaking data India is still a poor country only because of inequality, these rich sections are concentrated only in the metro city that we can call it, the richest hotspot of urban India. In this urban India the living standard of people are high because of availability of job opportunities, housing facilities, 24x7 hrs electricity, world class education, health facilities and all the utilities that an individual want to fulfill. But, the figure is juxtaposed to rural India. Due to this unbalanced development between rural-urban, people of rural migrated to urban India. According to census 2001; the share of rural-to-urban migrants in the population rose from 5.06% in 2001 to 6.5% in 2011. But what about the female labor force? The female migrated only for social-and family related reasons rather than economic consideration. Several literatures concluded that the migrations of females are mainly caused by marriage or as a dependent (Bose 1973; Premi 1979; Nangia 1990; Rele, 1969). Therefore the core ability to do work by females by residing to their homeland is crushed by this migration. My analysis suggests increasing the participation of female work force into their own homeland by creating more jobs (skilled & unskilled) in organized and unorganized both types of sectors.

Those who are born in poorer sections tend to stay poor, leading to persistence of inequality (Asher, Novosad & Rafkin 2021).

Women are an important part of society and have contributed a lot to the economy. Women contribute to the economy by playing a huge role in household tasks such as cooking. cleaning and providing childcare. The current conditions of minority women contribution to society are not good. In most countries, they are still underrepresented in politics and business leadership positions. This can be attributed to the long history of discrimination against women, which has resulted in lower education levels and lower salaries than men. To increase women contribution in economy, there are several things that need to be done: *firstly*, we need to ensure that all individuals have equal access to education regardless of their gender; *secondly*, we need to encourage women's participation in work force participation at all levels; *thirdly*, we need to develop programs that will help women to overcome barriers, such as poverty or lack of access; *fourthly* we need more research on gender equality issues so that we can identify solutions for these problems. The contribution of women in the economy is critical. Women make up half of the world's population, and they are an increasing force in society. However, many women face barriers to accessing employment and education. For instance, women with limited education often find it harder than men to get jobs in the first place—and once they do, they're more likely to be paid less for doing the same work. In addition, if women do not have access to quality healthcare and sanitation facilities, their ability to care for their families and fulfill their obligations as citizens is compromised. One way we can fix this problem is by improving our education system so that all children have access to high-quality education regardless of gender or race. This will help ensure equality between men and women in all walks of life. Women are playing a vital role in the economy. According to a study done by

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the United Nations, women contribute about 28% to the global gross domestic product (GDP). The contribution of women to the global economy has increased over time. According International Labor Organization а report issued bv the (ILO) in to 2018, women contributed about \$16 trillion or about 28% of total global GDP. Women make up half of the world's population and are highly represented in all walks of life from business and politics to science, arts and sports. They even play important roles in military activities as they serve in different branches of armed forces across the globe. In a time when the need for women's contribution in the economy has never been more important, it's clear we have a lot of work to do. Women make up half of our population, yet they're still underrepresented in leadership positions. This is due largely to a lack of role models and mentorship—and it's not just a problem for women who are trying to break into tech or other male-dominated fields. Even in traditionally female industries like education and social work, women face barriers that prevent them from rising to their full potential. The good news is that there are solutions out there—and they aren't just cute accessories or beauty products. We can help bring more women into leadership positions by investing in our education system and giving women the resources they need to succeed. The importance of this study is to analyze the core problem of this region that is hindrance in accessing the education and socioeconomic dimensions of life. This paper also enlighten why Muslims female are lag behind the opportunities (work) and not able to explore themselves in this region. This type of research will help the society to breakdown the negative impact of socio-religion factor, and help in making modal and policies so that equal participation by all in the work force. Equal participation by all in the work force will induced the economy towards inclusive growth & development

Objectives:

India is a "sovereign, socialist secular democratic republic" (42nd Amendment act 1976) where diversification and integration of various religious group is the core structure of the economy. Religious profile of the populace is the important socio-cultural and demographics features since the first census 1872 till now. Religious aspects of an economy are the quintessential vehicle that coerces the wheels of the economy. This paper professed the data analysis on the low female participation rate in work force especially in Muslims community. This paper exhibits different tabular data on census 2011 and primary survey (2023) conducted by schedule interview. For the analysis of work force participation rate, I have chosen (15-59) age group of the population.

- Distribution of population by religion groups (Hindu &Muslim) and their sex ratios.
- Literacy rate by religion communities and gender
- Work participation rates by religion and gender(15-59)
- Work force (organized sector & unorganized sector)
- Literacy rate of females in different age groups(15-59)
- Higher and secondary school enrolment ratio of females.
- Drop-out rate of females in schools and colleges.
- Attitudes of different groups towards, working women. (mark by +ve and –ve)
- Number of SGH to trickle down the effect of female vulnerability. The participation rate has been dropping since 2005; despite having 42% females are graduated. As per the Indian development report ,the World bank commented on the lowest female participation in the work force; India's ranking 120th among 131 countries. Since, the job opportunities are mostly grabbed by male groups or due to discriminatory socio-norms of India, females cannot effectively grab this opportunity. *According to the Census 2001, the Indian workforce is over 400 million, which constitutes 39.1 % of the total population of the country. Sex differential among the*

number of male and female worker in the total workforce is not significant. Out of the total 402 million workers, 275 million are males and 127 million females. This would mean that 51.7 percent of the total males and 25.6 percent of the total females are workers. The numbers of female workers are about less than half the number of male workers. In terms of proportion, 68.4 percent of the workers are males and 31.6 percent females. My research paper analyses the key indicators for the slowing growth rate of female labor participation in work force.

In a speech delivered by IMF Managing Director Christine Lagarde (Business standard.com) "Empowering women can be an economic game changer for any country. For instance, if women were to participate in the labor force to the same extent as men, national Income could increases by 5% in US, 9% in Japan, and 27% in India".

Hypothesis:

Many researchers hypothesized that there is a U-shaped relationship between growth and female labor force participation rate(Claudia Goldin 1995; Lincove 2008; Mammen and Paxson 2000; Dasgupta and Goldar2005; Klasen and Pieters 2012).But evidences suggested this proximation validate only for developed country, not for developing country like India (Lahoti & Swaminathan, n.d.). The hypothesis of this research is to find:

The relationship between growth (GPR) and female labor force participation rate (LFPR).

Role of education in job opportunities and there relation i.e. higher education to high rate of work participation or vice-versa.

Religion factors impact on accessing the education and work participation.

Gender gap in work force and its impact on growth.

Measure the socio- economic status of Muslim females by using three dimensions (education, health and living standard of life) and their impact on development.

Measure the socio- religion status by using income-expenditure method and level of freedom given to Muslim female to do the work.

Review of Literature and Research Gap

The Indian Economy trapped into the vicious circle of stagflation after post Independence 1947, markedly slower growth combined with unemployment and predominantly high inflation rate. In this paper we explore the deceleration of potential growth to emphasize the contributory role of female labor force participation in prolonging and deepening the correspondence to lower growth rates. The persistently declining rate of female participation labor force has led to scholars especially feminist and activists to call for urgent needs in policy intervention and to create job opportunities for women to trickledown the effect of social-strata of women.

The literatures on this topic are sought to analyses the key determinants of female labor force participation and its relation with different factors.

(*Goldin 1995*): An arduous and seminal work articulated by Goldin towards convergence of female labor force participation in work force is the function of U-shaped relationship between female labor supply and the level of economic development across countries.

Evidences suggested that the decline in female labor force participation rates owes to an income effect, but as female education improves and as the value of women's time in the market increase still further, relative to the price of goods, they move back into the paid labour force, as reflected in the move along the rising portion of the U-shaped curve. The process suggests an initially strong income effect combined with a small substitution effect.

(*Dasgupta & Goldar, 2005*): A prominent observation concerning female labour supply in India is that participation by educational attainment follows a U shape-curve. Women with low grade education tend to have higher participation rates than women with primary or secondary education.

This observation may be related to socio-economic status, as women in poorer households may be required to complement their household's income through market work in order to meet minimum subsistence needs

(*Rani & Unni, 2009*): the female participation in work force is more likely to be determined by their cultural milieu than by the recent liberalization process. A large proportion of women prefer to work from home to avoid the fixed cost working on site, and also the day caring of their domestic work. The empirical evidences suggested that the opportunity cost, work from home is higher than working on site; this may leads to engage in non market work and thus created difficulties in measuring the calculation of actual working force in the market.

(*Klasen & Pieters, 2012*): Estimation results shows that highly educated (graduation & above) women, as opposed to poorly educated are drawn onto the labor force by higher expected wages, the impressive economic performance of the Indian economy is, if anything only creating attractive labor market opportunities for highly educated women. According to their analysis there is a U-shaped relationship between the expected high wage rate and higher education level (subject to urban economy of India).

(Rahul Lahoti & Hema Swaminathan 2013): their work criticizes the U-shaped relationship between female labor supply and economic development. Results suggested that at the state level, there is no systematic U-shaped function between level of domestic product and women's LFPR. Aggregate changes in the proportion of females in the workforce can be mostly attributed to the movement of the workforce across sectors rather than changes in the proportion of female workforce within a sector.

(*MGNREGA 2005*): The Mahatma Gandhi National Rural Employment Guarantee Act2005 is the world's largest work guarantee programmed that guaranteed 100 days work @194 per day (Bihar wage rate) to the unskilled worker enacted for rural India. The data presented by nrega.nic.in (as per data 2010-2011) of female participation in different states of India is not up to mark. The southern region of India (Kerala 90%, Tamil Nadu 83%, Andhra Pradesh 57%, & Karnataka 46%) depicted higher participation by women where as the participation rate of eastern part of India (Bihar 28%, West Bengal 34%, Jharkhand 33% Uttar Pradesh 21% & Assam 27%) is not satisfactory. The puzzling gap of female labour participation in between Southern-Eastern region raises the voices of many famine scholars and activist to call for urgent needs to intervene into the policy making schemes and suggest for filling the gap with feminization based policy. The participation rate of women is also slackened due to the presence of socio-economic, socio-religious, (A caste and Agrarian: A view from Bihar by Chakrabarty.A 2001) and gender discrimination factors prevailing in India with special reference to Bihar.

The evidences suggested that available employment opportunities for women in India have declined (Chowdhury, 2011). This may be because employment opportunities has not

generated with the rise in the working-age population, due to increased competition with men for scarce jobs and an increasing reluctance of women to take up informal (and poorlyremunerated) work.

Government Initiatives for women empowerment:

1. *STEP* (*Support to Training and Employment Programme For Women*): This schemes aim to provide skills that give employability to women and to provide competencies and skill that enable women to become self-employed. The scheme is intended to benefit women who are in the age group of 16 years and above across the country.(Department for Promotion of Industry &Internal Trade).

2. *MUDRA Yojana for Women*: The Pradhan mantri Mudra yojana for women aims to provide the necessary financial support (up to 10 lakh) to eligible women who want to start their own business.(Mudra.org.in)

Key gaps in the literature: Even though substantial effort has been made in the existing literature to measure the stagnant or declining rate of female participation rate in work force but there are some ambiguities behind the exiting literature that can be analyses as:

• According to many researchers and scholars there is a U-shaped relationship between national income and LFPR (Goldin 1995; Lincove 2008; Mammen and Paxson 2000; Dasgupta and Goldar2005; Klasen and Pieters 2012).But evidences suggested this proximation validate only for developed country, not for developing country like India (Lahoti & Swaminathan 2013).

- There is lack of religion based study on female labor force participation in the district level.
- The determinants of stagnant and decline LFPR outcomes are-Education, religion, caste & creed, and unbalanced growth are not included into the discussion.
- India is a diversified and a secular country where socio-religious, socio-economic, and socio-culture are the important parameters to identify the impact on LFPR. These 3's parameters are the pillar of an economy. Existing literature do not identified and explained the co-existence of these parameters.
- In every budget government allocated a good chunk of expenditure towards the development and upliftment of women, but survey and studies suggested only a smaller part of the expenditure has been reached due to lack of education and information. Why government initiatives (MGNREGA 2005, MUDRA yojana) failed on the ground level, should be a part of discussion.

Justifications

Among the developing countries India is a backward country in which status of Bihar is insurmountable. According to World Bank estimates, India has one of the lowest female labour force participation rates in the world. In 2019, about 20.7 % of women were in the labor force across India, down from approximately 30% in 1990 and Bihar fares the worst with the lowest workforce participation rates for female at 2.8 percent. According to NITI Aayog's report, Bihar's composite score (52 out of 100) was the lowest among all states using 115 indicators, and if we talk about the status of women in Bihar is the most agony part of our economy.

• Bihar is located in the eastern region of India; it bears the ignominy of being among the poorest states with very low development outcomes and indicators in the domains of education, job opportunities, health & security, female labor force participation, poverty, gender gap.

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• The female work participation rate of Bihar is much lower than the average female participation rate of India i.e. 2.8% which is elusively justifiable.

• Similar trends have been shown in loss of employment opportunities for both Bihar and India; this trend is especially stark for women in rural areas.

• The total number of person-days generated (MGNREGA) in Bihar was 82 million of which around 40 million were accounted for by female (www.nrega.gov.in), but the study of the results are juxtapose.

• The sample area of my study is the rural part of Bihar; Kishanganj is the most backward region of India. In this region Muslims community are in majority and my focus area of study in socio-religion parameter is to evaluate the status of Muslims female and their participation in work force.

• Since, it is the most backward region of our country therefore rate of migration is high. My study quantified the migration rate of female as a dependent or the opportunities available to them after head of family is migrated.

• The illiteracy rate in Kishanganj is just alarming the repercussions of socio indicators which is a matter of concern for the policy makers.

My study tutelage to break out the caveat that thwarted the freedom or empowerment of women, and accumulated all the socio indicators under the shade of one umbrella that accelerate the participation rate of female in work force.

Methods & Methodology:

The survey area of this study is district of Bihar, Kishanganj. There are seven blocks (Kishanganj, Pothia, Thakurganj, Bahadurganj, Dighalbank, Terhagach and Kochadhamin). The total number of households in kishanganj district is 338445; rural households are 306497; whereas urban households are 31948; The research is based on primary data as well as on secondary data, in primary data the size of the sample is selected by the empirical formula as calculated below, there are two calculated value of sample size, one for rural area i.e. 384 households and 380 households for urban area; since, there is a limitation for time bound and other factors, sample size will be further limited(decreased) for observations. Calculation of sample size:

$$= \frac{NZ^2 \times 0.25}{[(d)^2 \times (N-1)] + [(Z)^2 \times .25]}$$

Where, n = Sample size requiredd = Accuracy precision level (i.e. 0.01, 0.05, 0.10 etc.) Z = Standardization value indicating a confidence level (Z = 1.96 at 95% confidence level and Z = 2.56 at 99% confidence level. See Unit 16 for more details. N = Population size (known or estimated).

n

n (Rural) = $306497x(1.96)^2x 0.25$ [(.05)² x (306496-1)]+ [(1.96)² x .25]

= 384(approx)

n (urban) =
$$31948 x(1.96)^2 x 0.25$$

[(.05)² x (31948-1)]+ [(1.96)² x .25]

=380(approx)

(Confidence level-95% and 5% precision level has been chosen i.e d = 0.05 and Z = 1.96)

Data will be collected by random sampling method and schedule interview and focused group interview will be conducted. Blocks that are surveyed, (Kishanganj, Pothia, & Thakurganj). The survey is to obtain data for focused on Muslim female age group of (15-59) years data on work participation, literate, seeking for job others and a comparison with male population and objective is to find the gap.

According to the theory of allocation of time exposed by Becker (1965, 1991), Gronau (1977), Heckman (1978) and Killingsworth (1983) labor force participaton decision of a woman is the result of a joint decision making process of her household. The household maximizes a combined utility function subject to the constrains, they face to determine the times allocated to home work, market work and leisure for the individuals. Thus, the time allocated to market work will depend on a number of personal and household characteristics as well as on the labor market characteristics. The labor market conditions determine the costs of a job search and the remunerations of the market work. Accordingly, the following model is posited:

Female Participation Rate_i = $Xi \beta + Zi \mu + Ui$

Where Xi is a vector of variables representing personal and household characteristics. Personal characteristics include cultural determinants also such as religion and patriarchal ideology. Zi is a vector of variables representing the labor market conditions. Ui is the zero mean and constant variance disturbance term. The most important personal variable influencing female labor force participation rate is the level of education of a women. In this study, a proxy will be used for education by a regional indicator for the educational level. Several alternative indicators are used such as the proportion of the female high school graduates in the female population; female high school enrollment rate; female mean years of schooling and female illiteracy rate. Theoretically, the effect of education on female labor force participation is ambiguous. We can differentiate between the effect of education on the decision to participate in the labor market and on the decision of how much time to spend in the labor market. Education has a positive effect on the decision to participate in the labor market for two reasons. First, if education is considered as an investment in human capital then the recipient has to work in order to recover cost of education. Second, if education is considered a consumption activity, the recipient will be induced to work because of higher earning potential since the opportunity cost of not working is higher. The effect of education on women's duration of work depends on the relative strength of two forces: the substitution effect and the income effect. First, education increases the potential earnings and therefore the cost of not working. This will increase the duration of work. Thus, it is a positive effect. Second, as a result of higher earnings, income target is achieved sooner. The part of higher income then could be allocated to consume more leisure and work less. The net effect of education depends on which force dominates. Some researchers suggested that the effect of education on female labor force participation depends on the stage of development of the country. Smith and Ward (1985) found that in the United States in 1900 the association between education and female participation was negative. Kottis (1990) found a similar result in Greece in 1971 and 1981. The second important personal variable is the female and male wages. Economic theory posits that the effect of female wages on female labor force participation depends on the relative strengths of substitution and income effects. The substitution effect will be positive since higher female wages will mean more female labor force participation. The income effect will be negative since as income raises workers desire more leisure and less work. Assuming that the income effect is small, the overall effect of female wages on female labor force participation will be positive. On the other hand male wages are expected to have a negative influence on female labor force participation since the

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higher the wages of the husbands the less likely that the wives need to work. One of the variables that were used to describe local labor market conditions was the regional unemployment rate. The effect of the unemployment rate on female labor force participation is ambiguous depending on the relative strengths of "discouraged-worker effect" and the "added-worker effect". The regional unemployment affects the probability that women entering the labor market will find a job. The higher the regional unemployment rate, the less likely will it is for women to find a job. Economic and psychological costs associated with job search will be higher when the local unemployment rate is high. For these reasons, women may be discouraged from looking for a job and drop out of the labor force. Therefore, the discouraged-worker hypothesis implies a negative effect of the local unemployment on female labor force participation. Gross domestic product of a province is referred to as gross regional product (GRP). Following the previous studies I posited female labor force participation of the logarithm of the per capita GRP. Thus, in the estimated equations both logarithm per capita GRP and its square appear. The means and standard deviations of the variables used in this study for analysis.

Tools: 'R programming' and Advance data analysis Excel will be used for calculation tabulation and estimations of results.

Background of the sample area:

Kishanganj was the old and important sub-division of Purnia district. After a hard struggle of 17 years, the Kishanganj District came into existence on 14th January 1990. It is situated in the north–east of the State of Bihar, bordering areas of West Bengal, Nepal and Bangladesh. The district headquarter is 425 kms away from the State capital Patna. The district has one sub-division: Kishanganj and seven blocks: Kishanganj, Pothia, Kochadhamin, Thakurganj, Bahadurganj, Dighalbank, Terhagachh. It has two Nagar Panchayats: Bahadurganj and Kishanganj; and one municipality, namely Kishanganj. The total number of Gram Panchayats and revenue villages in the district is 126 and 802 respectively. It has one parliamentary constituency (Kishanganj) and three assembly constituencies (Kishanganj, Thakurganj and Bahadurganj). This district is Muslim dominance where most of the population lives in rural part and the main working population are from unorganized sectors. The demographic profile is demonstrated below extracted from census of India 2011.

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(Demographic Profile of Kishanganj district, Bihar)

| Indicator | Rural | Urban | Grand Total | Rural % | Urban % | Grand Total% |
|---|---------|--------|----------------|------------|------------|-----------------|
| Total population - Females | 745959 | 77471 | 823430 | 49% | 48% | 49% |
| Total population - Males | 783318 | 83652 | 866970 | 51% | 52% | 51% |
| Total population - Person | 1529277 | 161123 | 1690400 | 100% | 100% | 100% |
| Total worker population - Person | 477910 | 51154 | 529064 | 100% | 100% | 100% |
| Illiterate population - Females | 482803 | 35492 | 518295 | 55% | 54% | 55% |
| Illiterate population - Males | 397008 | 30041 | 427049 | 45% | 46% | 45% |
| Illiterate population - Person | 879811 | 65533 | 945344 | 100% | 100% | 100% |
| Literate population - Person | 649466 | 95590 | 745056 | 100% | 100% | 100% |
| Main agricultural labourers population - Person | 212968 | 7333 | 220301 | 100% | 100% | 100% |
| Main cultivator population - Person | 87453 | 2894 | 90347 | 100% | 100% | 100% |
| Main household industries population - Females | 1613 | 494 | 2107 | 35% | 39% | 36% |
| Main household industries population - Males | 2961 | 764 | 3725 | 65% | 61% | 64% |
| Main household industries population - Person | 4574 | 1258 | 5832 | 100% | 100% | 100% |
| Main other workers population - Person | 37320 | 30616 | 67936 | 100% | 100% | 100% |
| Main working population - Females | 43665 | 6251 | 49916 | 13% | 15% | 13% |
| Main working population - Males | 298650 | 35850 | 334500 | 87% | 85% | 87% |
| Main working population - Person | 342315 | 42101 | 384416 | 100% | 100% | 100% |
| Marginal agricultural labourers population - Females | 36650 | 1238 | 37888 | 37% | 41% | 37% |
| Marginal agricultural labourers population - Males | 61900 | 1778 | 63678 | 63% | 59% | 63% |
| Marginal agricultural labourers population - Person | 98550 | 3016 | 101566 | 100% | 100% | 100% |
| Marginal cultivator population - Females | 6853 | 113 | 6966 | 40% | 37% | 40% |
| Marginal cultivator population - Males | 10360 | 189 | 10549 | 60% | 63% | 60% |
| Marginal cultivator population - Person | 17213 | 302 | 17515 | 100% | 100% | 100% |
| Marginal household industries population - Females | 3755 | 338 | 4093 | 71% | 68% | 71% |
| Marginal household industries population - Males | 1550 | 158 | 1708 | 29% | 32% | 29% |
| Marginal household industries population - Person | 5305 | 496 | 5801 | 100% | 100% | 100% |
| Marginal other workers population - Females | 7056 | 1953 | 9009 | 49% | 37% | 46% |
| Marginal other workers population - Males | 7471 | 3286 | 10757 | 51% | 63% | 54% |
| Marginal other workers population - Person | 14527 | 5239 | 19766 | 100% | 100% | 100% |
| Marginal worker population - Females | 54314 | 3642 | 57956 | 40% | 40% | 40% |
| Marginal worker population - Males | 81281 | 5411 | 86692 | 60% | 60% | 60% |
| Marginal worker population - Person | 135595 | 9053 | 144648 | 100% | 100% | 100% |
| Non working population - Females | 647980 | 67578 | 715558 | 62% | 61% | 62% |
| Non working population - Males | 403387 | 42391 | 445778 | 38% | 39% | 38% |
| Non working population - Person | 1051367 | 109969 | 1161336 | 100% | 100% | 100% |
| Number of households | 306497 | 31948 | 338445 | 100% | 100% | 100% |

Data Analysis:

Since, my research is based on primary data which is not collected yet. But some analysis will be concluded from the census data of 2011 which is mentioned above. We can see that percentage of working population of Male was 80% whereas % of female working population was only 20% out of total working population the gap of 60% is a matter of concern means 60% are able to contribute in GRP but are not contributing. Similarly literate female population was only 41% and male population was 59% both of them lag behind the scope and opportunities of basic education. Following calculation will be done after conducting the primary survey.

| Mean and Standard Deviation of the Variables | | | | | | |
|---|-----|-----------------------|--|--|--|--|
| Variables | | Standard Deviation | | | | |
| Female Labor Force Participation Rate (%) | 44 | 0.56 | | | | |
| Logarithm of per capita Gross Regional Product(GRP) | 32 | 0.67 | | | | |
| Log per capita Gross Regional Product Squared | 26 | 0.12 | | | | |
| Work population rate | 37 | 0.23 | | | | |
| Gap in Male and Female literacy rate | 38 | 0.33 | | | | |
| Gap in Male and Female employment rate | 44 | 0.44 | | | | |
| GRP Growth Rate | 55 | 0.45 | | | | |
| Female High School Graduates (%) (Age-15-59) | | 0.23 | | | | |
| Female High School Enrollment Ratio | | 0.30 | | | | |
| Female Illiteracy Rate (%)(Age-15-59) | 36 | 0.35 | | | | |
| Female Mean Years of Schooling | 34 | 0.45 | | | | |
| Female Unemployment Rate (%)(Age-15-59) | 15 | 0.34 | | | | |
| Male Unemployment Rate (%)(Age-15-59) | 35 | 0.24 | | | | |
| Agricultural Employment Share (%)(Age-15-59) | 20 | 0.12 | | | | |
| Industrial Employment Share (%)(Age-15-59) | | 0.25 | | | | |
| Services Employment Share (%)(Age-15-59) | | 0.35 | | | | |
| Number of Observations | 100 | 0.25 | | | | |

Conclusion:

In conclusion, the significance of female labour force involvement in the development of Bihar, particularly in the case study of Kishanganj, is a key component that cannot be ignored. The case study will focus on the city of Kishanganj. The findings of this study will shed light on how critically important it is to encourage the economic independence of women in order to achieve sustainable development in the region.

Further according to this study, increasing the proportion of women who participate in the labour force has a favourable impact on economic growth, the reduction of poverty, the development of skills, gender equality, and social development. Kishanganj economy will be propelled forward by the active participation of women in the labour field, which leads to increased levels of productivity, creativity, and overall output. In addition, enhancing women's economic independence is a critical factor in bringing families out of poverty and raising the overall quality of their living conditions. Women are able to develop skills and capacities that are beneficial to the expansion of their region if they Retrieved fromhttps://ijeponline.com/index.php/journal

have access to educational and vocational training possibilities, as well as jobs.

Furthermore, strengthening women economically challenges conventional gender norms and practises of discrimination, which helps to create gender equality and gives women more agency in decision-making processes. In turn, this leads to beneficial changes in society, the breaking down of social boundaries, and the promotion of inclusiveness. The research will also emphasised on the potential positive influence on health, educational opportunities, and general well-being indicators for women and their families.

In order to realise the full potential of the contribution that female workforce participation may make to the state of Bihar, additional research and policy changes are required. Among these are the elimination of obstacles to entry, the improvement of skill development, the encouragement of entrepreneurial endeavours, the guaranteeing of financial inclusion, the conducting of policy research and advocacy, and the establishment of effective monitoring and evaluation systems.

By acknowledging the significance of women's economic empowerment and putting targeted initiatives into action, the state of Bihar will be able to unleash the full potential of its female workforce, which will in turn drive sustainable development, reduce poverty, promote gender equality, and create a future that is more prosperous and inclusive for everyone.

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