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A Ground-Level Study On Gender Inequality In Assam With Special Reference To The Higher-Income And Lower-Income Districts With Spatial Diversion.

[1]Mr. Devasish Hazarika, [2]Dr. Shreedhar Satyakam

[1]Doctoral Fellow, Mahatma Gandhi Central University, Motihari, Bihar.
hdevasish@gmail.com

[2]Assistant Professor, University of Allahabad.
shreedharsatyakam@mgcub.ac.in

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Abstract: *Gender inequality is a complex problem that has been studied in economic literature using econometric methods such as regression models and Blinder-Oaxaca decomposition and so on. Nonetheless, there aren't many in-depth economic evaluations of gender inequality. Using a survey approach, this study integrates elements from economic literature to examine gender disparity in Assam. To find answers, data gathered using a 5point Likert Scale questionnaire which is statistically analysed using tests for normality, reliability, and ANOVA. Results show a relationship ($r = 0.123$, $p < 0.01$) between reduced gender inequality in Assam and greater education levels. This highlights the importance of education in promoting equality. Furthermore, there is a positive association (t-value = 30.687, $p < 0.001$) between gender disparity and socioeconomic differences. Additionally, a positive correlation exists between socio-economic disparities and gender inequality (t-value = 30.687, $p < 0.001$). Unstandardized coefficients indicate that a 0.693 unit increase in Women Empowerment corresponds to a one-unit increase in Information and Communication Technology. Government initiatives significantly reduce gender inequality in Assam, explaining 76.3% of its variance. The model fits the data well, indicating the efficacy of governmental interventions. Overall, this study highlights the significance of education, ICTs, Improvements in Labour market conditions and governmental policies in addressing gender disparities and fostering equality in Assam, showcasing the practical implications of economic literature in combating gender inequality.*

Introduction:

To bridge the gender gap, there is still a lot of work to be done, as highlighted in the Economic Survey [2011–12]. As a result, the gender gap is a significant and ongoing problem, especially in developing states like Assam.

According to the Assam Human Development Report (Govt. of Assam, 2003), Assam falls behind Manipur, Meghalaya, Arunachal Pradesh, Mizoram, and Nagaland in terms of human development. In light of these factors, it was advised to carry out a comprehensive examination into the state's policies towards women's empowerment.

The world economy has shifted its paradigm from manufacturing to service to all-inclusive economy. There are major changed observed all over the world in several field and sectors by and large. These are several factors responsible for the major revolutionary changes. Some of them are: globalization, international geo-political conditions, market dynamics, government reforms, technological advancements, COVID-19 pandemic outbreak. All of these lead to volatile, uncertain, complex and ambiguous (VUCA) conditions in the marketplaces (Amirkhanyan et al, 2021). Both developed and developing economies have been facing the challenges to deal with the changing global scenario while underdeveloped nations are struggling for survival

themselves. The governments, industries, large corporations, communities and other organizations have revised their business policies, strategies with changing conditions in order to cope up (Karami, et. al., 2020).

There are numerous distinct faces to gender inequality. Amartya Sen, a Nobel laureate, has researched various aspects of gender inequality. In 2001, he proposed seven types of inequalities in a keynote address for the new Radcliffe Institute at Harvard University, namely mortality inequality, natality inequality, basic facility inequality, special opportunity inequality, professional inequality, ownership inequality, and household inequality.

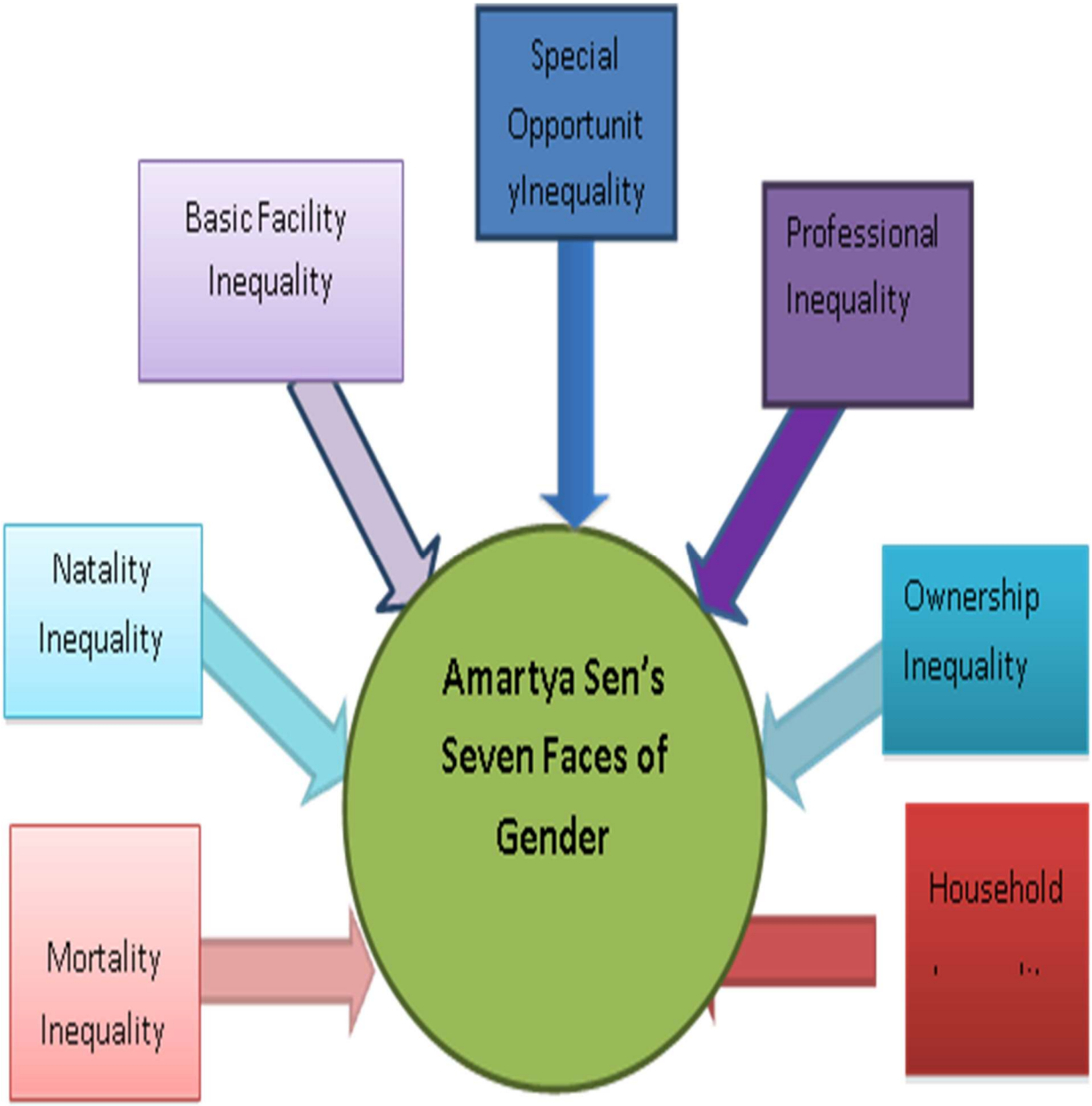


Figure 1.1: The Seven Faces of Gender Disparity by Amartya Sen

There are various measurement techniques which enable a nation to address the gender inequality issues. But

most of the indices are designed for global perspectives.

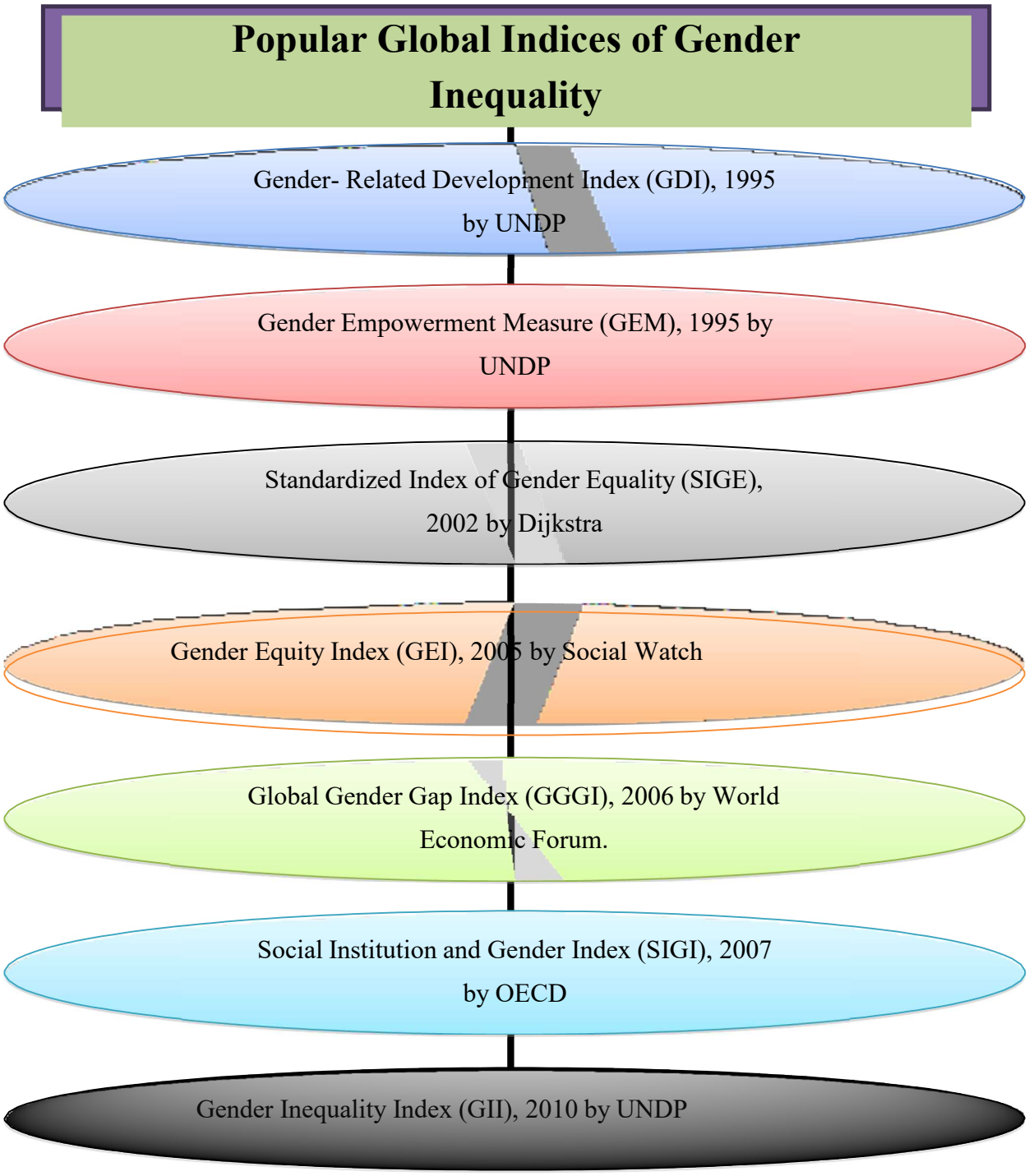


Figure 1.2: Popular Global Indices of Gender Inequality

Background and Motivation of the Study:

India's robust GDP growth since the 1980s has improved living standards but not substantially altered job conditions. Despite economic expansion, low-productive employment persists, particularly among marginalized groups. Gender disparities in workforce participation and earnings persist, with women facing limited opportunities despite educational advancements (Madheswaran, 1996; Duraisamy & Duraisamy, 2016). Assam's labor market reflects a dual structure, with disparities between formal and informal sectors exacerbating socio-religious wage gaps. The public sector dominates in hiring highly qualified workers, while the private sector's wages are dictated by supply and demand. This research aims to understand Assam's labor market dynamics and address gender inequality.

Motivation behind Considering Gender Inequality:

The exacerbation of gender disparities during the COVID-19 pandemic has underscored the urgency of addressing existing inequalities in economic stability and labor allocation. Research delves into factors such as backlash, risk perception, and gender stereotypes, emphasizing an intersectional perspective (Fisher & Ryan, 2021). While gender equality efforts traditionally center on women, it's imperative to acknowledge men's reduced involvement in domestic spheres, perpetuating inequality (Bailey et al., 2020; Meeussen et al., 2019). Societal pressures, stemming from gender stereotypes, often compel men to prioritize paid work over domestic responsibilities, subjecting them to social stigma if they deviate from traditional norms (Cejka & Eagly, 1999). Achieving genuine gender equality necessitates dismantling these barriers hindering men's participation in domestic duties, which entails dispelling harmful perceptions, bolstering men's self-efficacy in domestic roles, and acknowledging their contributions (Cheryan et al., 2017; Eagly, 1987; Eagly et al., 2020). Thus, social psychologists play a pivotal role in refining strategies to mitigate disparities across all gender groups.

Relevance of Gender-Biased Motivational Factors:

Prior studies elucidate how the social environment significantly influences women's decisions regarding entry into or departure from STEM professions, shaping their motivation and career aspirations. A study involving 685 participants revealed prevalent encounters with sexual harassment (78.1%) or gender bias (60.9%) within the past year (Leaper & Starr, 2019). Additionally, Kantanista et al. (2015) found that body image serves as a statistically significant positive predictor of vigorous physical activity among adolescents, particularly impacting boys more significantly than girls.

Motivation behind Considering Labour Market Conditions:

Persistent wage disparities and higher unemployment rates among female workers, despite technical education, highlight a substantial gender gap in earnings and employment (Padhi et al., 2019). Discrimination, rather than inherent characteristics, predominantly contributes to this inequity, as evidenced by decomposition analysis. Women with technical diplomas often face a "sticky floor" effect hindering upward mobility, while those with degrees encounter both "sticky floor" and "glass ceiling" obstacles, indicating barriers to advancement (Mohanty, 2021). Factors such as marriage and childcare responsibilities exacerbate discrimination against women. Establishing gender sensitization committees and implementing behavioral norms are imperative to shatter the glass ceiling for women with technical backgrounds.

Reason for Considering Women Empowerment:

Women's empowerment encompasses fostering self-confidence, enhancing decision-making abilities, and catalyzing societal change to uphold women's rights (Bergam et al., 2022). In the tourism sector, women's roles and entrepreneurship significantly predict empowerment (Abou-Shouk et al., 2021). Despite efforts like the Women's Empowerment in Agriculture Index, which measures decision-making and resource access, contextual modifications are required for effective policy impact (Gupta et al., 2019). Rural women's well-being remains hindered by various obstacles, necessitating a nutrition-focused empowerment index (Narayanan et al., 2019).

Rationale for Considering Information and Communication Technology:

Despite global ICT proliferation, women in developing countries encounter exacerbated disparities in access, while developed nations grapple with second-level digital divide issues. Sociocultural factors notably contribute to this phenomenon. Primary data analysis indicates that ICT adoption empowers women, particularly those from marginalized communities, fostering innovation and supporting micro-entrepreneurship. Bridging the

gender digital divide demands actionable policies addressing sociocultural factors (Acilar & Saebo, 2023; Chatterjee et al., 2020).

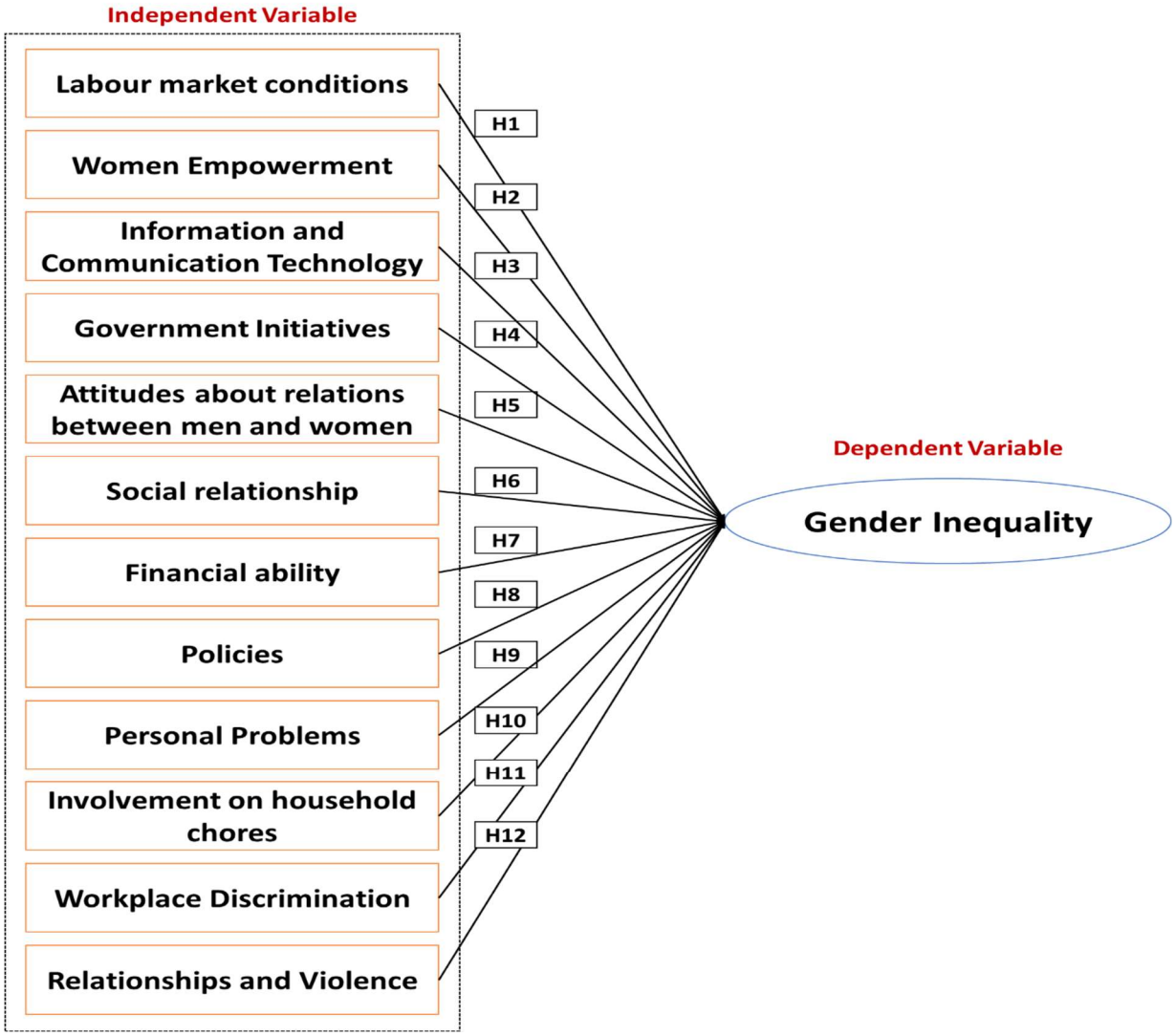
Reason behind Considering Government Initiatives:

Initiatives like the ASHA program in India, launched in 2000, aim to mitigate gender inequality faced by approximately one million female community health workers. Despite reforms, challenges persist, necessitating ongoing policy adaptation (Khalid et al., 2020; Ved et al., 2019). Schemes such as "Arunudoy" in Assam contribute to elevating the income levels of marginalized females.

Relevance of Attitudes about the Relationship between Women and Men:

Studies reveal a concerning prevalence of discriminatory attitudes among teenagers in Haryana, with parental influence, particularly from mothers, exerting significant sway, especially in Scheduled Caste communities. Gender attitudes correlate positively with behaviors like cross-gender interactions (Dhar et al., 2018). Gender discrimination continues to influence entrepreneurial career choices in India, underscoring the importance of institutional support and peer influence in emerging economies (Kumar & Das, 2019). Efforts to combat outdated gender stereotypes and norms aim to address various outcomes, including sexual and reproductive health and violence against women, necessitating interventions ranging from policy reforms to community mobilization, with involvement of men and boys enhancing efficacy (Stewart et al., 2021).

CONCEPTUAL FRAMEWORK:



OBJECTIVES OF THE STUDY:

This study is based on the following objectives:

1. To investigate service sector labour market and wage levels in the light of gender inequalities in Assam and explore the overall characteristics of the sample respondents in Assam.
2. To study how gender inequality is impacted by information and communication technologies in workplace.
3. To investigate the pattern of workplace discrimination among the sample respondents in Assam.
4. To evaluate the impact of government programs on the sample respondents.
5. To assess the degree of violence and interpersonal relationships among the sample respondents.

Methodology and Data Source:

Data:

The Research design includes the selection of study participants of working community that includes both the genders. It involves the evaluation of Gender inequalities in four districts of Assam. Survey questionnaire is prepared for the evaluation of collected data as unit of analysis. The researchers have well-planned the research design using general strategies with step-by-step process starting with selection of study participants, study

design, sampling size and area, data collection and data analysis for evaluation and assessment of gender inequality in Assam. Stratified Multistage Random Sampling has been operated to collect primary data with the help of a structured Questionnaire. The Reasons behind selecting Stratified Multistage Random sampling as the sampling technique are given below:

Stratification on the basis of Per Capita Income: Two districts having higher income and two districts having lower income have been chosen.

Geographical Stratification: Since the study is concentrating on four districts of Assam, it has rationale to stratify the sample according to the districts. This guarantees participation Upper Assam and Lower Assam.

Gender Stratification: The sample is further divided into gender-based groups within each district. This will enable a more thorough examination of gender inequality.

According to NSDP 2017-2018 report, Tinsukia is a progressive district of Upper Assam whereas Dhemaji is known as a Regressive district of Upper Assam. Undivided Kamrup District which is a Progressive District of Lower Assam and Dhubri situated in Lower Assam which is a Regressive District. These four districts are the selected districts to study Gender Inequality in terms of various parameters which remain unexplained or considered as discriminants while employing Blinder Oaxaca Decomposition.

From each district 150 respondents are selected for the research study.

$$n = \frac{Z^2 \, x \, p(1-p)}{\varepsilon^2}$$

where,

z = z score

ε^2 = margin of error

n = population size

p = population proportion

$$n = \frac{(1.96)^2 \, x \, 0.5 \, (1-0.5)}{0.05^2}$$

$$n = \frac{3.84 \, x \, 0.25}{0.0025}$$

Sample Size (n) = 384

The researchers selected the sample size of 600 from the male and female respondents of both Formal and Informal service sector entities which is adequate to represent the population. The sample size is determined on the basis of the suggestions provided by Hair et al. (2008), Green (1991) and the rule of thumb provided by most of the psychological research studies.

Methodology:

The research method used in the present research study is survey method. The collected data from the survey can be statistically analysed for drawing out the solutions for the research problem. The questionnaire is comprised of various types of questions like demographic data to obtain information to analyse the gender inequality which are studied using reliable and valid instruments. The collected responses from the study population is measured through 5-point Likert scale and statistically analysed using Statistical Packages for Social Sciences (SPSS.26).

Results and Discussion:

Hypothesis 1:

H0: Gender has no significant impact on the wage difference in the selected districts of Assam.

H1: Gender has a significant impact on the wage difference in the selected districts of Assam.

Table 1: Group Statistics

	My_gender_category_is	N	Mean	Std. Deviation	Std. Error Mean
Wage	Male	300	50721.6667	6977.27059	402.83291
	Female	300	50293.0000	8119.78782	468.79617

Based on the group statistics, the mean wage for males in the selected districts of Assam is slightly higher than for females. However, to determine if gender has a significant impact on the wage difference, further statistical analysis is needed.

Table 2: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
wage	Equal variances assumed	2.323	.128	.694	598	.488	428.66667	618.09724	-785.23854	1642.57188
	Equal variances not assumed			.694	584.756	.488	428.66667	618.09724	-785.29430	1642.62764

Levene's test was employed to assess the equality of variances between two independent samples, yielding a test statistic of F = 2.323 with a significance level of .128, suggesting no significant difference in variances. Subsequently, a t-test for equality of means was conducted assuming equal variances, resulting in a t-statistic of .694 with 598 degrees of freedom and a two-tailed significance level of .488. The mean difference between the samples was found to be 428.67, with a standard error of 618.10 and a 95% confidence interval ranging from -785.24 to 1642.57. When equal variances were not assumed, the results remained consistent, with a t-statistic of .694 and 584.76 degrees of freedom, reaffirming no significant difference between the sample means. The mean difference, standard error, and confidence interval remained unchanged in this condition. Overall, the findings suggest that there is no statistically significant difference in wages between the compared groups.

Hypothesis 2:

H0: There is no close association between education and gender inequality in the selected districts of Assam

H1: There is a close association between education and gender inequality in the selected districts of Assam

For this hypothesis testing, we have considered ANOVA test, because in education and gender inequality there are more than two groups (two categories), so we utilized this test.

Table 3: Descriptives

Gender_Inequality				
	N	Mean	Std. Deviation	Std. Error
Primary	183	3.2592	.85398	.06313
Secondary Education	159	2.9883	.96877	.07683

Graduate	153	3.1277	.92309	.07463
Post-Graduate and Above	105	3.0282	.96428	.09410
Total	600	3.1135	.92670	.03783

Table 4: ANOVA

Gender_Inequality					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.169	3	2.390	2.808	.039
Within Groups	507.233	596	.851		
Total	514.402	599			

Table 5: Robust Tests of Equality of Means

Gender_Inequality				
	Statistic[a]	df1	df2	Sig.
Welch	2.901	3	303.446	.035
a. Asymptotically F distributed.				

Table 4 presents Welch test results. ANOVA indicates a significant link between education levels and gender inequality in Assam's districts ($F(3, 596) = 2.808$, $p = 0.039$). Mean scores show variance across education categories, with primary education highest ($M = 3.2592$) and secondary lowest ($M = 2.9883$). Robust tests confirm significant differences (Welch's $F(3, 303.446) = 2.901$, $p = 0.035$), revealing education's role in reducing gender inequality**.**

Hypothesis 3:

H0: There is no close association between socio-economic conditions and gender inequality in the selected districts of Assam.

H1: There is close association between socio-economic conditions and gender inequality in the selected districts of Assam.

Table 6: Correlations

		Gender_Inequality	socio_economic_conditions
Gender_Inequality	Pearson Correlation	1	.123**
	Sig. (2-tailed)		.003
	N	600	600
socio_economic_conditions	Pearson Correlation	.123**	1
	Sig. (2-tailed)	.003	
	N	600	600
**. Correlation is significant at the 0.01 level (2-tailed).			

There is a statistically significant positive correlation between the two variables ($r = 0.123$, $p < 0.01$). This suggests that socio-economic disparities tend to increase in tandem with gender inequality, and vice versa.

Hypothesis 4:

H0: The labour market conditions are not responsible for gender inequality in Assam

H1: The labour market conditions are responsible for gender inequality in Assam

Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.731[a]	.535	.534	.63541

a. Predictors: (Constant), Labour_market_conditions

R is the Pearson correlation coefficient, which describes the strength and direction of a linear relationship between Dependent and independent variable. The R-value of 0.731 from the above table says that there is a strong and positive correlation between the variables.
The R^2 value of 0.535 shows that 53.5% changes in Gender Inequality is explained by independent variables Labour market conditions, and Perfectionism. 46.5% is captured by error term, so we can clearly conclude that the model has a good fit. The adjusted R^2 value 0.534 shows that 53.4% changes in Gender Inequality is explained by Labour market conditions. From this adjusted R^2 value, we can conclude that the model has a good fit.

Table 8: ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	277.340	1	277.340	686.918	.000[b]
	Residual	241.440	598	.404		
	Total	518.781	599			
a. Dependent Variable: Gender_Inequality						
b. Predictors: (Constant), Labour_market_conditions						

The ANOVA test confirms that the overall regression model is significant for data, this we can say by observing an F-statistic value of 686.918 and a significance value of 0.000 which is less than 0.05.

Table 9: Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.789	.092		8.561	.000
	Labour_market_conditions	.713	.027	.731	26.209	.000
a. Dependent Variable: Gender_Inequality						

The regression analysis in the table reveals a strong correlation between labor market conditions and gender inequality. The coefficient for biased labor market conditions is 0.713 ($p < 0.001$), indicating a significant increase in gender inequality with each unit rise. The t-value of 26.209 confirms this association's statistical significance. Overall, the analysis underscores the substantial impact of labor market conditions on gender inequality, with more favorable conditions linked to greater equality.

Hypothesis 5:

H0: Information and Communication Technology has no significant impact on women empowerment in Assam.

H1: Information and Communication Technology has a significant impact on women empowerment in Assam.

Table 10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.782[a]	.612	.611	.37063
a. Predictors: (Constant), Information_and_Communication_Technology				

R is the Pearson correlation coefficient, which describes the strength and direction of a linear relationship between Dependent and independent variable. The R-value of 0.782 from the above table says that there is a

strong and positive correlation between the variables.

The R^2 value is used to measure the goodness of fit of a model, and it gives the percentage of the total variation in the dependent variable that is explained by the independent variable. The R^2 value 0.612 shows that 61.2% changes in Women Empowerment is explained by Information and Communication Technology. 38.8% is captured by error term, so we can clearly conclude that the model has a good fit. From this adjusted R^2 value also, we can conclude that the model has a good fit.

Table 11: ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	129.356	1	129.356	941.677	.000[b]
	Residual	82.146	598	.137		
	Total	211.502	599			
a. Dependent Variable: Women_Empowerment						
b. Predictors: (Constant), Information_and_Communication_Technology						

The ANOVA test confirms that the overall regression model is significant for data because the F-statistic value is 941.677 at significance value 0.000 which is less than 0.05.

Table 12: Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.202	.096		12.491	.000
	Information_and_Communication_Technology	.693	.023	.782	30.687	.000
a. Dependent Variable: Women_Empowerment						

The unstandardized coefficients indicate that a predicted increase of 0.693 units in Women Empowerment corresponds to each one-unit increase in Information and Communication Technology. The t-value of 30.687 indicates statistical significance ($p < 0.001$). Based on the standardized coefficient of 0.782, which signifies a substantial positive impact of Information and Communication Technology on Women Empowerment, it can be concluded that Information and Communication Technology explains a considerable portion of the variability observed in Women Empowerment scores. The predicted level of Women Empowerment in the absence of the Information and Communication Technology variable is denoted by the constant term (1.202), which is deemed statistically significant ($t = 12.491$, $p < 0.001$). In summary, the results of this study indicate that information and communication technology significantly contribute to the advancement of women's empowerment.

Hypothesis 6:

H0: Government Initiatives cannot improve the gender equality status in Assam

H1: Government Initiatives can improve the gender equality status in Assam.

Table 13: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.763[a]	.582	.581	.60218
a. Predictors: (Constant), Government_Initiatives				

Table 14: ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	301.932	1	301.932	832.635	.000[b]
	Residual	216.848	598	.363		
	Total	518.781	599			
a. Dependent Variable: Gender_Inequality						
b. Predictors: (Constant), Government_Initiatives						

Table 15: Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.906	.080		11.315	.000
	Government_Initiatives	.706	.024	.763	28.855	.000
a. Dependent Variable: Gender_Inequality						

The coefficient for government initiatives is 0.706, indicating that for every unit increase in government initiatives, there is a 0.706 unit decrease in gender inequality. This coefficient is statistically significant with a t-value of 28.855 and a p-value of 0.000.

The model fits well as indicated by the R-square value of 0.582, suggesting that 58.2% of the variability in gender inequality can be accounted for by government initiatives. The adjusted R-square value also supports this conclusion. The ANOVA test confirms that the regression model is significant, meaning that the relationship between government initiatives and gender inequality is not due to random chance. The F-statistic value of 832.635 and a significance value (p-value) of 0.000 indicate that the model is statistically significant.

In simple terms, the analysis suggests that government initiatives have a significant and positive impact on reducing gender inequality in Assam. About 76.3% of changes in gender inequality can be addressed by these initiatives, and the model fits the data well.

In simple terms, the analysis suggests that government initiatives have a significant and positive impact on reducing gender inequality in Assam. About 76.3% of changes in gender inequality can be addressed by these initiatives, and the model fits the data well.

Normality test:

There are various statistical tests to check for normality, such as the Shapiro-Wilk test, Kolmogorov-Smirnov test, and Anderson-Darling test. Socio-economic indicators such as age, gender inequality, women's empowerment, information and communication technology, attitudes toward male-female relations, social relationships, financial capability, organizational gender discrimination, workplace discrimination, and relationships and violence seem to be normally distributed. This assumption is based on their mean values being close to zero, standard deviations around 1, skewness and kurtosis values being within the acceptable range of -2 to +2 for normal distribution, indicating symmetrical and bell-shaped distributions. In contrast, involvement in household duties and labor market conditions exhibit skewed distributions due to their significantly higher mean values and skewedness scores, suggesting non-normality.

Mann-Whitney U Test:

The Mann-Whitney U test, is a non-parametric statistical test used to compare two independent groups. It is a powerful alternative to the independent samples t-test when the assumptions of normality and equal variances are not met. The Mann-Whitney U test does not assume that the data follows a specific distribution (e.g., normal distribution). It is distribution-free and robust to deviations from normality. Therefore, it can be applied to a

wide range of data types, including ordinal and skewed data.

Table 16: Ranks

	My_gender_category_is	N	Mean Rank	Sum of Ranks
Wage	Male	300	286.74	86022.50
	Female	300	314.26	94277.50
	Total	600		
Gender_Inequality	Male	300	293.40	88020.50
	Female	300	307.60	92279.50
	Total	600		
Gender_biased_motivational_factors	Male	300	303.83	91149.00
	Female	300	297.17	89151.00
	Total	600		
Women_Empowerment	Male	300	300.51	90153.00
	Female	300	300.49	90147.00
	Total	600		
Information_and_Communication_Technology	Male	300	310.87	93262.00
	Female	300	290.13	87038.00
	Total	600		
Government_Initiatives	Male	300	303.83	91149.00
	Female	300	297.17	89151.00
	Total	600		
Attitudes_about_relations_between_men_and_women	Male	300	302.39	90717.00
	Female	300	298.61	89583.00
	Total	600		
Social_relationship	Male	300	298.33	89499.00
	Female	300	302.67	90801.00
	Total	600		
Financial_ability	Male	300	298.00	89399.00
	Female	300	303.00	90901.00
	Total	600		
Policies	Male	300	307.27	92180.50
	Female	300	293.73	88119.50
	Total	600		
Personal_Problems	Male	300	294.28	88284.50
	Female	300	306.72	92015.50
	Total	600		
Involvement_on_household_chores	Male	300	288.31	86493.00
	Female	300	312.69	93807.00
	Total	600		
Gender_discrimination_at_organizations	Male	300	292.87	87862.00
	Female	300	308.13	92438.00
	Total	600		
Workplace_Discrimination	Male	300	291.51	87452.50
	Female	300	309.49	92847.50
	Total	600		
Relationships_and_Violence	Male	300	292.25	87675.50
	Female	300	308.75	92624.50

	Total	600		
socio_economic_conditions	Male	300	293.88	88164.50
	Female	300	307.12	92135.50
	Total	600		
Labour_market_conditions	Male	300	307.27	92180.50
	Female	300	293.73	88119.50
	Total	600		

Table 17: Test Statistics

	wage	Gender_Inequality	Gender_biased_motivational_factors	Women_Empowerment	Information_and_Communication_Technology	Government_Initiatives	Attitudes_about_relations_between_men_and_women	Social_relationship	Financial_ability	Policies
Mann-Whitney U	40872.500	42870.500	44001.000	44997.000	41888.000	44001.000	44433.000	44349.000	44249.000	42969.500
Wilcoxon W	86022.500	88020.500	89151.000	90147.000	87038.000	89151.000	89583.000	89499.000	89399.000	88119.500
Z	-1.960	-1.006	-.472	-.001	-1.479	-.472	-.268	-.308	-.355	-.962
Asymp. Sig. (2-tailed)	.050	.315	.637	.999	.139	.637	.788	.758	.722	.336

Personal_Problems	Involvement_on_household_chores	Gender_discrimination_at_organizations	Workplace_Discrimination	Relationships_and_Violence	socio_economic_conditions	Labour_market_conditions
43134.500	41343.000	42712.000	42302.500	42525.500	43014.500	42969.500
88284.500	86493.000	87862.000	87452.500	87675.500	88164.500	88119.500
-.883	-1.728	-1.081	-1.274	-1.170	-.937	-.962
.377	.084	.280	.203	.242	.349	.336

The table presents statistical analysis results for various factors related to gender equality and workplace dynamics. The Mann-Whitney U and Wilcoxon W values indicate the rank sum of samples between groups, with lower values suggesting potential differences. Z scores measure the deviation from the mean in standard deviations, aiding in understanding the significance of observed differences. The associated p-values help determine statistical significance, with values below 0.05 indicating significant distinctions. In this analysis, factors such as wage (Mann-Whitney U = 40872.500, p = 0.050), personal problems (Mann-Whitney U = 43134.500, p = 0.084), and involvement in household chores (Mann-Whitney U = 41343.000, p = 0.084) exhibit p-values hinting at potential gender disparities or other differences, while factors like attitudes about relations between men and women (Mann-Whitney U = 44433.000, p = 0.788) show less significant distinctions.

Reliability test

The reliability of the study's constructs is a measure of how well they agree with one another. If the value of Alpha for a construct or variable is more than 0.70, then it may be considered dependable. Cronbach's alpha was used to determine construct dependability.

Gender Inequality:

Table 18: Reliability Statistics

Cronbach's Alpha	N of Items
.866	7

Gender biased motivational factors:

Table 19: Reliability Statistics

Cronbach's Alpha	N of Items
.886	7

Labour market conditions:

Table 20: Reliability Statistics

Cronbach's Alpha	N of Items
.890	7

Women Empowerment:

Table 21 Reliability Statistics

Cronbach's Alpha	N of Items
.802	7

Reliability Test for Information and Communication Technology:

Table 22 Reliability Statistics

Cronbach's Alpha	N of Items
.884	7

Government Initiatives:

Table 23: Reliability Statistics

Cronbach's Alpha	N of Items
.800	7

Attitudes about relations between men and women:

Table 24: Reliability Statistics

Cronbach's Alpha	N of Items
.889	7

Socia relationship:

Table 25: Reliability Statistics

Cronbach's Alpha	N of Items
.821	7

Financial ability:

Table 26: Reliability Statistics

Cronbach's Alpha	N of Items
.872	7

Reliability Test for Policies:

Table 27: Reliability Statistics

Cronbach's Alpha	N of Items
.869	7

Reliability Test for Personal Problems:

Table 28: Reliability Statistics

Cronbach's Alpha	N of Items
.860	7

Reliability Test for Involvement on household chores:

Table 29: Reliability Statistics

Cronbach's Alpha	N of Items
.885	7

Reliability Test for Gender discrimination at organizations:

Table 30: Reliability Statistics

Cronbach's Alpha	N of Items
.861	7

Reliability Test for Workplace Discrimination:

Table 31: Reliability Statistics

Cronbach's Alpha	N of Items
.887	7

Reliability Test for Relationships and Violence:

Table 32: Reliability Statistics

Cronbach's Alpha	N of Items
.839	7

Reliability Test for socio-economic conditions:

Table 33: Reliability Statistics

Cronbach's Alpha	N of Items
.849	7

Conclusion:

The Gender Inequality scenario in the service sector of Assam in terms of Gender Pay Gap is not so problematic in formal sector but informal sector faces Wage Disparity. In the selected districts no clear statistically significant wage gap is found. Education is significantly a crucial factor contributing towards Gender Inequality. There is significantly close association between socio-economic conditions and gender inequality. The behavior and conventional attitudes towards women should be checked. Labour market conditions play a vital role in reducing or adding fuel to gender inequality. If labour market conditions are not favourable to both the genders then Gender Inequality will be on a rise. Information and Communication Technology has a significant impact on women empowerment in Assam**.** The research analysis has found that Government initiatives have a significant and positive impact on reducing gender inequality in Assam. About 76.3% of changes in gender inequality can be addressed by these initiatives. It is not only the work of the government but also the duty of each and every educated individual to retain a progressive mind set towards women and eradicate the conventional societal barriers in terms of wants, ignorance and squalor.

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