



Exploring Women's Political Participation And Empowerment In Rural India

¹Sonam Kumari, ²Md. Tariqe Anwar

¹Research Scholar in Political Science, Department of Arts,

²Associate Professor in Political Science, Department of Arts,

^{1,2}Mangalayatan University, Aligarh, UP.

Abstract- India has made a historic stride towards gender-inclusive governance with the constitutional mandate for women's reservation in Panchayati Raj Institutions (PRIs). However, in rural settings where patriarchal norms remain deeply embedded, the actual empowerment of elected women representatives warrants deeper examination. The Madhubani district of Bihar is characterised by social conservatism and democratic involvement; this study investigates the level of political participation, awareness, and empowerment of women leaders in this region. In order to gather information from 300 EWRs, including Mukhiyas, ward members, and block-level officials, a mixed-methods approach was used. This technique included both structured questionnaires and semi-structured interviews. Descriptive statistics, reliability testing (Cronbach's Alpha = 0.841), ANOVA, T-tests, Pearson correlation, PCA, and reliability analysis were all used to examine the quantitative data. According to the results, there is a robust positive relationship ($r = 0.763-0.803$) between political awareness and involvement. Formal civic participation and informal political speech were found to be the two most prevalent engagement patterns, accounting for 79.63% of the total variance, according to PCA. Women elected through reserved seats reported significantly greater confidence and autonomy. Empowerment outcomes such as social respect (mean: 3.78 vs. 2.12) and decision-making power were notably higher among active participants. The study concludes that while reservation policies have enhanced visibility and participation, sustained capacity building and socio-political support are critical to translating representation into genuine empowerment in rural India.

Keywords- Panchayati Raj Institutions, women's empowerment, rural India, reservation policy, political awareness, local governance, gender equality

1. Introduction

India's democratic framework, rooted in constitutional ideals of equality and inclusivity, has continuously evolved to empower its marginalized populations. The Panchayati Raj system, which institutionalises women's participation in rural local governance, is among the most revolutionary moves in this direction. In addition to bringing government closer to the people, the Panchayati Raj Institutions, which were introduced as a means of decentralisation, created a previously unseen political arena for women, especially those from rural and economically disadvantaged backgrounds. Focussing on the political socialisation, awareness, involvement, and empowerment of elected women legislators in rural India, this study aims to investigate the breadth, character, and consequences of this engagement. The 73rd Constitutional Amendment Act of 1992 stipulated that women must constitute one-third of all PRI seats (Parveen & Hussain, 2024). In several states, including Bihar, the quota has been increased to 50%. This legislative move was not merely symbolic; it aimed to challenge entrenched patriarchy, break systemic exclusion, and give rural women a legitimate platform in decision-making processes. Over the decades, millions of women have entered local governance through this affirmative measure. However, the quality of participation,

decision-making power, and actual empowerment achieved through this inclusion remains a complex and contested subject.

In rural India, where gender hierarchies are deeply embedded within family, community, and institutional structures, political participation by women is often mediated by patriarchal norms and socio-cultural expectations. While the reservation policy has succeeded in numerically increasing the presence of women in governance, it has not always translated into autonomy or empowerment. Many women continue to face challenges such as proxy representation by male relatives (often referred to as the "sarpanch pati" phenomenon), lack of awareness about their rights and responsibilities, inadequate training, and resistance from male-dominated village power structures. As a result, the genuine political socialization and independent functioning of women in these roles vary widely (Chathukulam & John, 2000; Chetia & Gogoi, 2013; Jha, 2023; Kaur, 2018; Sonkar & Ojha, 2024; Sukumar et al., 2019; Supriya, 2024). The extent to which women are able to make a difference in government is heavily influenced by their political socialisation, or the way they learn and practise politics. In the rural Indian context, political socialization among women is often hindered by limited access to education, mobility restrictions, and low exposure to political institutions or discourse. Most women enter public office with minimal prior engagement in civic activities, lacking the institutional knowledge, self-confidence, and networks that are essential for effective leadership (Nawaj, 2024). Therefore, studying the degree of political awareness, training exposure, and active participation becomes vital to understanding how rural women engage with the governance system. However, political awareness is only one dimension of empowerment. The concept of women's empowerment is multidimensional and includes not just political power, but also social respect, economic independence, decision-making autonomy, and self-confidence. Empowerment implies a process of transformation—where women move from a position of subordination to one of control over their lives and environment. This transformation can be facilitated through their experience in Panchayati Raj, but it must overcome several barriers (Dr. Prachi Singh, 2013). These include caste-based discrimination, economic dependency, domestic responsibilities, limited access to resources, and the prevailing assumption that leadership is a male prerogative.

The transformative potential of women's political participation in rural governance is highlighted by countless success stories, despite these limitations. In many villages, elected women representatives have taken bold initiatives in improving sanitation, advocating for girls' education, ensuring better healthcare access, and standing up against domestic violence (Dutta et al., 2023). These examples point to the possibilities that emerge when women are given the space, resources, and encouragement to lead. Such cases show that participation in local governance can alter not just the lives of women leaders but also the broader dynamics of rural society by normalizing female authority and voice in public affairs.

The process of empowerment through political participation is complex and often nonlinear. While some women grow into leadership roles over time, others may experience disillusionment or frustration due to systemic resistance. This highlights the need to view women's political empowerment not as a fixed outcome but as an ongoing process influenced by individual agency, institutional support, community acceptance, and policy implementation. It also necessitates an intersectional approach that considers how different identities such as caste, class, age, and marital status—shape women's experiences in governance (Patel & Sharma, 2022). Empowerment should be measured not just through policy outcomes but also through subjective experiences—how women perceive their roles, how confident they feel in public interactions, and how their communities respond to their leadership. This study operates on the premise that participation in Panchayati Raj can be a catalyst for women's empowerment, but the outcome depends on various intervening factors, including the supportive role of the family, educational background, community acceptance, training by government or NGOs, and the role of reservation itself (Choudhary & Patidar, 2024; Reena Singh, 2023; Roy, 2024; Saini, 2023; Trivedi et al., 2024). While the reservation policy has provided an entry point, the actual process of empowerment depends on the internalization of political roles, decision-making power, and the ability to influence local development agendas. Therefore, this study examines how reservation, patriarchy, and political exposure intersect to affect the empowerment journey of women leaders.

2. Literature Review

(Trivedi et al., 2024) With the declared goals of promoting extensive economic development and reinforcing democratic ideals, a new form of government was established in India, marking a significant advancement in the country's following history. governmental reorganisation. In 1992, as a way to transfer power to rural communities, the third clause to the Constitution formally established these organisations (PRIs). The primary objective was to ensure that residents were included in decision-making processes that would significantly affect their daily life. Given the size, diversity, and socioeconomic complexity of Uttar Pradesh's people, it is crucial that PRIs be successful there. The philosophy underlying the Panchayati Raj system, its historical implementation, and its effects on public participation in democracy are all explored in this paper. Focussing on financial and bureaucratic decentralisation, the essay examines the challenges of participation, electoral participation, and governance in relation to the sociopolitical dynamics of the region. Finally, the paper concludes with some last recommendations for improving the state's PRIs and bolstering democratic principles.

(Singh, 2024) Within the framework of socio-political evolution within Panchayats in India, this article explores the journey of women from the fringes to the mainstream. Local self-governing entities, or panchayats, are vital to grassroots development and government. The path of women in Panchayats is nevertheless complicated, filled with obstacles and possibilities, even if there are constitutional safeguards in place. The social and political life. impact of women's engagement is examined in this study, which synthesizes previous research and secondary data. The study highlights successes, obstacles, and implications for inclusive development and gender equality. In order to further empower women and ensure fair participation in Panchayats, the report ends with policy proposals.

(Saini, 2023) This study highlights the significance of women in decentralisation in from a practical as well as a theoretical perspective. This study intends to illuminate the experiences and contributions of the women who taught in the panchayati ra institutions in the Meerut district of Uttar Pradesh. The main objectives are to gain a deeper comprehension of the ways in which women's tenacity and leadership in PRIs are shaping regional self-governance. Primary and secondary data gathered from the many villages that make up the Meerut district. The 80 individuals we polled for this study's main data set represented a wide range of ages, genders, and occupations. Associations Run by Women in Panchayati Raj

(Reena Singh, 2023) In order to help women become more financially included and to help them find good economic prospects for their living, self-help groups (SHGs) were founded. Across regions that are semi-urban and rural, millions of women reaped the benefits of this innovative program, which empowered them economically. Using the Madhubani, who district of Bihar as a case study, this research examines the significance of Jeevika in empowering women economically. Primary data for the study came from a survey that used a closed-ended questionnaire to gather information. A total of 251 homes will serve as the study's sample. The link between economic independence for women and their work with SHGs/Jeevika is tested using a logistic regression model. According to the findings, women's involvement in Jeevika is positively correlated with their economic empowerment. In addition to a lower income and greater education, women's economic empowerment is strongly correlated with family assistance for home chores and a lower income overall.

(Thakor & Patel, 2021) This study aimed to examine the female sarpanch profile and its direct and indirect effects on leadership behavior by surveying 124 women from three randomly chosen districts in Middle Gujarat. To determine the profile of women sarpanch's direct and indirect effects, route analysis was employed. From a total of nineteen variables, four had a negative direct effect on leadership behavior, whereas the other eighteen variables all had positive effects, according to the path analysis. When considering the entire indirect effect, the largest positive effect was exerted by family size. In the event of significant indirect impacts, understanding of the panchayati raj system and achievement motivation ranked highest, followed by social insight skills.

3. Research Methodology

The research methodology section describes the steps used to conduct a systematic study on women's leadership experiences and the socio-economic effects of PRIs. The study examines two important dimensions political awareness and the empowerment of elected women representatives using a mixed-methods design that blends quantitative tools like structured questionnaires with qualitative insights from interviews. Researchers in Madhubani district, Bihar, used a purposive sample strategy to pick volunteers

from a wide range of socioeconomic backgrounds. This section elaborates on the research design, objectives, hypotheses, data collection tools, sampling strategies, statistical techniques, and ethical considerations. Each methodological choice is aligned with the research goals, ensuring that the findings are valid, reliable, and representative of the real challenges and achievements of women in PRIs.

3.1 Research Design

In order to thoroughly investigate women's political engagement and empowerment in Panchayati Raj Institutions, this study utilises a mixed-method research strategy, combining quantitative and qualitative techniques. Quantitative data was collected using structured questionnaires with Likert-scale items, enabling statistical analysis of awareness, engagement, and empowerment variables. Complementing this, qualitative insights were obtained through semi-structured interviews to capture the lived experiences, barriers, and motivators of women representatives. The integration of both methods allowed for triangulation of data, ensuring validity and depth. Factor analysis, correlation, t-tests, and ANOVA were applied to explore patterns and verify hypotheses related to political awareness and socio-economic transformation.

3.2 Research Objectives

The research aims to explore two critical dimensions of women's involvement in PRIs:

1. To explore the nature of political socialization and political awareness and participation of women representatives in the modern system of Panchayati Raj.
2. To analyze women empowerment in Panchayati Raj.

3.3 Research hypothesis

Based on the objectives of the study, the following hypotheses have been formulated to guide the investigation. Each hypothesis is presented in both its alternate (research) and null forms to enable statistical testing and interpretation of results.

Objective 1: To explore the nature of political socialization and political awareness and participation of women representatives in the modern system of Panchayati Raj.

- **Alternate Hypothesis (H1):** The patriarchal social system significantly influences the responsibilities of women representatives in Panchayati Raj, with many responsibilities being performed by male members of their families.
- **Null Hypothesis (H0₁):** The patriarchal social system does not significantly influence the responsibilities of women representatives in Panchayati Raj, and male members do not predominantly perform their duties.

Objective 2: To analyze women empowerment in Panchayati Raj.

- **Alternate Hypothesis (H2):** Reservation for women in Panchayati Raj Institutions significantly contributes to their empowerment.
- **Null Hypothesis (H0₂):** Reservation for women in Panchayati Raj Institutions does not significantly contribute to their empowerment.

These hypotheses are tested using statistical tools such as t-tests, ANOVA, and correlation analysis to assess patterns in political participation and empowerment among women leaders.

3.4 Study Area

The research was conducted in the Madhubani district of Bihar, a region with a robust Panchayati Raj system and significant gendered political dynamics. Madhubani presents a socio-politically diverse rural landscape, with varying levels of education, caste structures, and traditional gender roles. It offers a fertile ground for examining the interaction between institutional reservations for women and their real-world leadership experiences. The district's administrative divisions enabled the selection of multiple blocks for a broader representation of voices from elected women leaders in Gram Panchayats.

3.5 Target Population

The target population comprises elected women representatives in Panchayati Raj Institutions (PRIs) in Madhubani. This includes women who serve as Mukhiya (village heads), ward members, and block-level officials. The focus was on individuals who have served at least one term, ensuring experience in governance and participation. Inclusion criteria involved age (above 21), elected status, and active participation in Panchayat activities. This demographic was chosen to provide insights into the influence of reservations and the socio-political environment on women's actual empowerment and leadership capacities.

3.6 Sampling Method

Participants who fulfilled the study's eligibility requirements were chosen using a purposive sampling strategy. Women were chosen from various blocks within Madhubani to ensure geographic diversity. Care was taken to include representatives from different socio-economic backgrounds, castes, education levels, and ages to capture diverse experiences. This approach helped ensure that the sample included women with a range of leadership exposure and political awareness levels. By targeting informed and experienced women representatives, the study aimed to draw meaningful conclusions about empowerment, participation, and the influence of structural reservations.

3.7 Sample Size

A total of 300 women representatives participated in the study. The sample was drawn purposively from different Panchayat units in Madhubani to reflect a wide cross-section of demographic, social, and political contexts. This size was deemed sufficient for statistical validity, allowing the use of correlation, factor analysis, and inferential statistics like t-tests and ANOVA. The large, representative sample helped strengthen the reliability of the study's findings regarding women's awareness, political participation, and empowerment as influenced by reservations and local governance practices.

3.8 Data Collection Methods

The study used both primary and secondary data sources:

- **Primary Data:** A structured questionnaire using Likert-scale items measured variables such as leadership, autonomy, decision-making, and respect. Semi-structured interviews with selected women representatives captured their personal narratives, challenges, and successes in navigating Panchayati politics.
- **Secondary Data:** Reports from the Ministry of Panchayati Raj, election records, prior studies on women's political empowerment, and census data were reviewed to provide contextual background and validate primary data trends.

3.9 Research Variables

The study focused on identifying and analyzing key variables that influence women's leadership and empowerment in Panchayati Raj Institutions. Variables were categorized into independent, dependent, and control groups to ensure clarity and precision in analysis. This structured approach allowed for effective hypothesis testing and interpretation of empowerment dynamics:

- **Independent Variables:** Participation in PRIs, reservation status, education level, caste, prior political exposure.
- **Dependent Variables:** Levels of political awareness, confidence, decision-making autonomy, social respect, public engagement, and empowerment.
- **Control Variables:** Age, marital status, family background in politics. These variables were operationalized using reliable scales and validated through factor and reliability analysis. They enabled statistical testing of the hypotheses regarding the effect of patriarchy and reservation on empowerment outcomes.

3.10 Statistical Tools and Techniques

A full suite of statistical tools and methodologies was used to analyse the data provided, guaranteeing accurate, valid, and informative results. To begin, we profiled the women delegates based on demographic information such as age, education, caste, and years of experience in Panchayati Raj Institutions. We used Pearson's correlation to see how strongly and in what direction variables like political awareness and training attendance and participation were related. Using Principal Component Analysis, we were able to extract latent categories of political engagement and empowerment from these interrelated factors. Using Independent Samples T-tests and ANOVA, we looked for statistically significant variations in empowerment levels between various groups, with a focus on reserved and non-reserved categories. These inferential tests were useful in figuring out how factors like socioeconomic background, reservations, and participation affected empowering results. Finally, Cronbach's Alpha was found to be more than the acceptable level of 0.7, indicating that the questionnaire items were internally consistent and reliable. Collectively, these statistical tools provided robust, multi-dimensional insights that aligned closely with the research objectives and validated the study's core hypotheses.

3.11 Validity and Reliability

To ensure the credibility of findings:

- Content validity was confirmed by reviews from subject experts and field professionals in Panchayati Raj.
- Pilot testing was conducted with 15 women representatives to fine-tune the questionnaire.
- Reliability was ensured through Cronbach's Alpha values exceeding 0.7 for major constructs like empowerment and awareness. This multi-layered validation approach ensured the instruments captured consistent, meaningful data reflective of real-world condition

3.12 Ethical Considerations

Ethical integrity was strictly upheld throughout the study.

- Participants gave informed consent before data collection.
- Participation was entirely voluntary, with the right to withdraw at any stage.
- Anonymity and confidentiality were maintained, and no personal identifiers were disclosed in reports.
- Data was used solely for academic research and handled responsibly. This ethical framework was essential for ensuring trust and openness, particularly when discussing personal and socio-cultural experiences in a politically sensitive rural context.

4. Results and Discussion

The study aimed to examine political socialisation and assess the empowerment of women in Panchayati Raj Institutions; the results and discussion part provides an in-depth examination of the data obtained in line with these objectives. Statistical methods like ANOVA, t-tests, correlation, and factor analysis are used to look for patterns, relationships, and differences between groups in quantitative data. By providing background on each table and statistical output, the author establishes a connection between the study hypotheses, theoretical frameworks, and empirical findings. This segment not only verifies major shifts in women's agency and political consciousness, but it also emphasises how PRI membership has revolutionised their positions in rural government.

4.1 Data Analysis for Objective 1

This section presents the analysis related to Objective 1, which explores the political socialization, awareness, and participation of women representatives in Panchayati Raj. Various statistical tools have been applied to examine patterns, relationships, and the influence of patriarchal norms on women's roles in governance.

Objective 1: To explore out the nature of political socialization and political awareness and participation of women representatives in the modern system of Panchayati Raj

Table 4. 1 Correlations among Political Awareness and Participation Variables

Correlations							
		I am well-informed about the functioning of Panchayati Raj Institutions.	I regularly attend training or orientation programs.	I know my rights and duties as a Panchayat member.	I actively mobilize people for political participation.	I follow political developments at the local and state level.	I encourage women in my area to engage in politics.
I am well-informed about the functioning of Panchayati Raj Institutions.	Pearson Correlation	1	.690**	.755**	.763**	.803**	.669**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	300	300	300	300	300	300
I regularly attend training or orientation programs.	Pearson Correlation	.690**	1	.631**	.699**	.770**	.578**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	300	300	300	300	300	300
I know my rights and duties as a Panchayat member.	Pearson Correlation	.755**	.631**	1	.740**	.780**	.648**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	300	300	300	300	300	300
I actively mobilize people for political participation.	Pearson Correlation	.763**	.699**	.740**	1	.797**	.662**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	300	300	300	300	300	300
I follow political developments at the local and state level.	Pearson Correlation	.803**	.770**	.780**	.797**	1	.702**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	300	300	300	300	300	300
I encourage women in my area to	Pearson Correlation	.669**	.578**	.648**	.662**	.702**	1

engage in politics.	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	300	300	300	300	300	300
**. Correlation is significant at the 0.01 level (2-tailed).							

This table shows significant positive correlations (all $p < .01$) among variables like awareness of Panchayati Raj, training participation, political mobilization, and following political developments. For example, being informed about Panchayati Raj institutions is strongly correlated with following local/state politics ($r = .803$) and mobilizing participation ($r = .763$), indicating interconnected growth in awareness and active involvement.

Table 4. 2 Communalities in Political Awareness and Engagement Factors

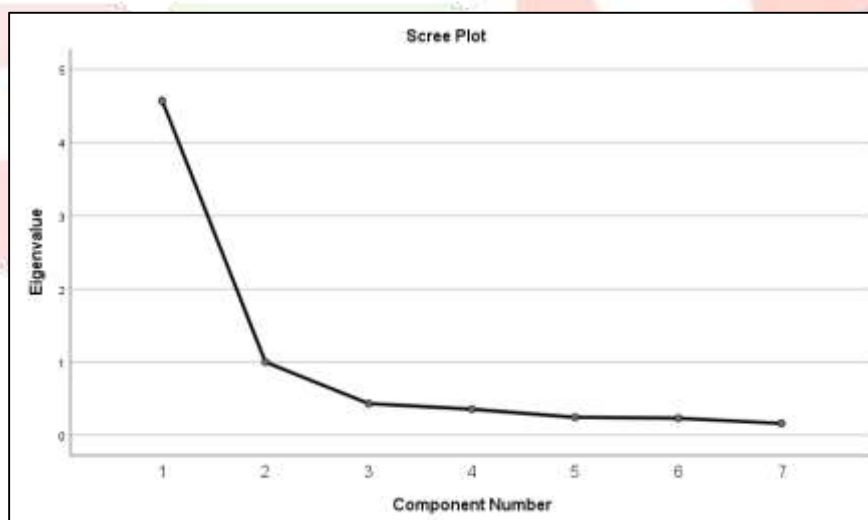
Communalities		
	Initial	Extraction
I am well-informed about the functioning of Panchayati Raj Institutions.	1.000	.804
I regularly attend training or orientation programs.	1.000	.694
I know my rights and duties as a Panchayat member.	1.000	.760
I actively mobilize people for political participation.	1.000	.798
I follow political developments at the local and state level.	1.000	.865
I encourage women in my area to engage in politics.	1.000	.655
I discuss political matters at home and in the community.	1.000	.999
Extraction Method: Principal Component Analysis.		

You can see how much of each variable's variance is explained by the factors that were retrieved in the communalities table. Extraction values for all variables are high, suggesting they contribute significantly to the latent structure; for example, 0.865 for political development and 0.999 for political conversation. This proves that all of the items are useful for gauging political participation and understanding.

Table 4. 3 Total Variance Explained by Principal Components

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.573	65.334	65.334	4.573	65.334	65.334	4.570	65.291	65.291
2	1.000	14.292	79.626	1.000	14.292	79.626	1.003	14.335	79.626
3	.432	6.168	85.794						
4	.356	5.082	90.876						
5	.245	3.501	94.377						
6	.232	3.317	97.694						
7	.161	2.306	100.000						
Extraction Method: Principal Component Analysis.									

This table summarizes the variance explained by principal components. The first component explains 65.33% of the variance, while the second adds 14.29%, totaling 79.63%. This shows that most variation in women's political awareness and behavior is captured by two main factors, confirming a clear and strong underlying structure in responses.

**Figure 1 Scree Plot**

The scree plot shows that the first two components have eigenvalues above 1, indicating they are meaningful for analysis. The sharp drop after the second component suggests a natural cut-off, supporting the retention of two principal components in the factor analysis.

Table 4. 4 Component Matrix – Initial Factor Loadings

Component Matrix^a		
	Component	
	1	2
I am well-informed about the functioning of Panchayati Raj Institutions.	.896	-.006
I regularly attend training or orientation programs.	.833	-.022
I know my rights and duties as a Panchayat member.	.872	.011
I actively mobilize people for political participation.	.893	.027
I follow political developments at the local and state level.	.929	-.037
I encourage women in my area to engage in politics.	.809	-.027
I discuss political matters at home and in the community.	.047	.998
Extraction Method: Principal Component Analysis.		
a. 2 components extracted.		

This table displays the raw factor loadings before rotation. Items related to political knowledge and participation load strongly on Component 1, while only one item—discussing politics at home—loads highly on Component 2. It suggests two underlying dimensions of political socialization, with Component 1 dominating most variables.

Table 4. 5 Rotated Component Matrix – Clearer Factor Structure

Rotated Component Matrix^a		
	Component	
	1	2
I am well-informed about the functioning of Panchayati Raj Institutions.	.896	.020
I regularly attend training or orientation programs.	.833	.002
I know my rights and duties as a Panchayat member.	.871	.036
I actively mobilize people for political participation.	.892	.052
I follow political developments at the local and state level.	.930	-.010
I encourage women in my area to engage in politics.	.809	-.004

I discuss political matters at home and in the community.	.018	.999
Extraction Method: Principal Component Analysis.		
Rotation Method: Varimax with Kaiser Normalization.		
a. Rotation converged in 3 iterations.		

After applying Varimax rotation, the loadings become more interpretable. The first component groups institutional awareness and civic engagement, while the second uniquely captures interpersonal political discourse. This clarifies that political empowerment in Panchayati Raj women occurs through both formal participation and informal political discussions at home or in communities.

Table 4. 6 Component Transformation Matrix – Orthogonal Rotation Details

Component Transformation Matrix		
Component	1	2
1	1.000	.029
2	-.029	1.000
Extraction Method: Principal Component Analysis.		
Rotation Method: Varimax with Kaiser Normalization.		

This matrix presents the transformation coefficients used during rotation, verifying that the two components are orthogonal (uncorrelated). The small values off the diagonal indicate minimal cross-loading, which strengthens the validity of using two distinct and independent factors in understanding women's political socialization and awareness.

Table 4. 7 T-test shows group-wise differences due to women's reservation policy

Group Statistics						
	Reservation ensures fair representation of women's issues.	N	Mean	Std. Deviation	Std. Error Mean	
Improved economic conditions have increased my political participation.	2	53	3.34	.979	.135	
	4	173	3.46	.766	.058	
It has built confidence among women to participate politically.	2	53	2.47	.846	.116	
	4	173	3.68	.558	.042	
It has broken the stereotype that politics is a male domain.	2	53	2.11	.375	.052	
	4	173	3.14	.553	.042	

This table compares mean responses between two groups of women based on the impact of reservation. Women from the reserved category (code 4) show higher mean scores in political participation, confidence, and stereotype-breaking. This indicates that reservation provisions are contributing significantly to women's political empowerment and visibility in leadership.

Table 4. 8 Independent sample t-tests confirm significant empowerment differences by reservation

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Improved economic conditions have increased my political participation.	Equal variances assumed	9.731	.002	-.953	224	.342	-.123	.129	-.377	.131
	Equal variances not assumed			-.838	72.560	.405	-.123	.147	-.415	.169
It has built confidence among women to participate politically.	Equal variances assumed	20.698	.000	-12.114	224	.000	-1.210	.100	-1.407	-1.013
	Equal variances not assumed			-9.786	66.421	.000	-1.210	.124	-1.457	-.963
It has broken the stereotype that politics is a male domain.	Equal variances assumed	8.249	.004	-12.622	224	.000	-1.026	.081	-1.186	-.865
	Equal variances not assumed			-15.414	127.303	.000	-1.026	.067	-1.157	-.894

The Independent Samples Test assesses the statistical significance of the differences between reserved and non-reserved groups. Results show highly significant differences ($p < 0.001$) for confidence in political participation and breaking gender stereotypes. These findings statistically validate the positive impact of reservations on empowering women in Panchayati Raj institutions.

Table 4. 9 ANOVA confirms reservation's strong role in promoting gender empowerment

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
I feel confident in expressing my opinions during Panchayat discussions.	Between Groups	11.235	4	2.809	3.330	.011
	Within Groups	248.801	295	.843		
	Total	260.037	299			
Reservation promotes gender equality in governance.	Between Groups	150.524	4	37.631	123.797	.000
	Within Groups	89.672	295	.304		
	Total	240.197	299			
It has built confidence among women to participate politically.	Between Groups	107.788	4	26.947	75.279	.000
	Within Groups	105.599	295	.358		
	Total	213.387	299			
More women now aspire to enter Panchayati Raj due to reservations.	Between Groups	133.201	4	33.300	99.766	.000
	Within Groups	98.466	295	.334		
	Total	231.667	299			

The ANOVA table explores how different levels of reservation affect perceptions of political empowerment. High F-values and p-values below 0.05 show that reservation significantly improves women's confidence, gender equality, and aspiration to join Panchayati Raj. This supports the hypothesis that political reservation strengthens women's roles and visibility in governance.

Hypothesis Testing Results for Objective 1

Using a correlation factor analysis, t-tests, and ANOVA, we tested the hypothesis that reservation leads to women's empowerment in order to test Objective 3, which aims to explore the nature of political socialisation, political awareness, and participation of women participants in the modern system of Panchayati Raj. Knowledge of the functioning of Panchayati Raj, rights and obligations, and political engagement were all positively correlated with one another in the correlation matrix, with all three associations being statistically significant at the 0.01 level. Two main components, reflecting formal and informal components of political socialisation, were identified by factor analysis, and they accounted for 79.6 percent of the total variation. Statements such as "It has broken the stereotype that politics is a male domain" and "It has built confidence among women to participate politically" exhibited large mean differences and high statistical significance ($p < .001$) in the T-test results, indicating significant differences in perception between the groups. Statistical analysis of variance (ANOVA) also showed that different demographic subgroups' answers to questions about gender equality, civic confidence, and ambitions varied significantly. The statistical evidence presented here provide credence to the idea that women's political engagement, self-assurance in leadership roles, and overall political literacy are all greatly improved when they are granted quotas in Panchayati Raj Institutions. Women have gone from being recipients of benefits to being leaders in grassroots governance, and reservation has been a driving force in this transformation.

4.2 Data Analysis of Objective 2

This section presents the analysis related to Objective 2, which focuses on assessing the impact of women's reservation in Panchayati Raj Institutions on their empowerment.

Objective 2: To analyze Women Empowerment in Panchayati Raj.

Table 4. 10 Case Processing Summary

Case Processing Summary			
		N	%
Cases	Valid	300	100.0
	Excluded ^a	0	.0
	Total	300	100.0
a. Listwise deletion based on all variables in the procedure.			

This table shows that all 300 responses were valid and none were excluded during analysis. This indicates that the dataset was complete and reliable, ensuring that the subsequent statistical findings are based on a consistent and full sample with no missing values or outliers affecting the results.

Table 4. 11 Cronbach's alpha confirms high reliability of empowerment questionnaire scale.

Reliability Statistics	
Cronbach's Alpha	N of Items
.841	24

The reliability statistics table shows that the measuring scale has strong internal consistency with a Cronbach's Alpha value of 0.841 for 24 items. This finding provides more evidence that the Panchayati Raj empowerment questionnaire is valid and that the results may be used for additional research.

Table 4. 12 Participation boosts respect and decision-making among Panchayat women leaders.

Group Statistics					
	Participation_Group	N	Mean	Std. Deviation	Std. Error Mean
I have gained more respect in my family and society.	.00	99	2.12	.627	.063
	1.00	111	3.78	.563	.053
I take independent decisions without male intervention.	.00	99	1.98	.473	.048
	1.00	111	3.44	.642	.061

This table compares mean scores of participants and non-participants in Panchayati Raj. Women with participation experience report significantly higher levels of respect and independence in decision-making, indicating that involvement in Panchayat roles contributes meaningfully to their personal and social empowerment.

Table 4. 13 T-test confirms significant differences in empowerment due to participation.

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
I have gained more respect in my family and society.	Equal variances assumed	1.058	.305	-20.252	208	.000	-1.663	.082	-1.824	-1.501
	Equal variances not assumed			-20.126	198.191	.000	-1.663	.083	-1.825	-1.500
I take independent decisions without male intervention.	Equal variances assumed	48.508	.000	-18.584	208	.000	-1.462	.079	-1.617	-1.307
	Equal variances not assumed			-18.903	201.079	.000	-1.462	.077	-1.614	-1.309

Differences between members and non-participants are shown to be statistically significant according to the Random Samples Test ($p < 0.001$). The average respect and independence scores of women who take part in Panchayati Raj are much higher. This lends credence to the idea that taking part raises their social standing and gives them more agency.

Table 4. 14 One-sample statistics highlight positive social changes due to participation.

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
I have gained more respect in my family and society.	300	3.14	.950	.055
Women in my area look up to me as a role model.	300	3.42	.836	.048
People now treat me with more respect in public.	300	3.67	.763	.044
My social status has improved due to my Panchayat role.	300	3.27	.887	.051

This table displays overall mean responses of women to empowerment-related statements. All means are above the neutral value of 3, suggesting women agree they are gaining respect, recognition, and status in society. These insights reflect real empowerment outcomes from active Panchayat involvement.

Table 4. 15 One-sample t-tests affirm statistically significant empowerment outcomes.

One-Sample Test						
	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
I have gained more respect in my family and society.	2.551	299	.011	.140	.03	.25
Women in my area look up to me as a role model.	8.699	299	.000	.420	.32	.52
People now treat me with more respect in public.	15.289	299	.000	.673	.59	.76
My social status has improved due to my Panchayat role.	5.274	299	.000	.270	.17	.37

This table shows all t-values are significant ($p < 0.05$), confirming that women's perceived respect, role model status, and improved social standing are not due to chance. The positive mean differences validate the hypothesis that participation in Panchayati Raj leads to measurable empowerment outcomes.

Hypothesis Testing Results for Objective 2

Objective 2 to find out how much agency women have gained from being a part of these organisations. Strong Cronbach's Alpha scores (0.841 for 24 items) indicate great internal consistency, confirming the measuring scale's dependability. The second hypothesis was tested with a mix of group-wise and one-sample t-tests; it stated that women's status has improved due to their involvement in Panchayati Raj. In the independent samples t-test, it was discovered that the two groups had substantially distinct levels of respect at home and in the community ($t = -20.252$, $p < .001$) and the ability to make independent decisions ($t = -18.584$, $p < .001$), indicating that being politically active obviously leads to empowerment outcomes. Supporting these findings, a one-sample t-test demonstrated that the mean scores of all empowerment markers were substantially greater than a neutral value of 3. The item "People now treat me with more respect in public" produced a substantial t-value of 15.289 ($p < .001$) and a high mean score of 3.67. All things considered, the data demonstrate that women's involvement in Panchayati Raj has empowered them,

raised their profile within their loved ones, and are empowered them to make decisions, and positioned them for higher government positions.

5. Conclusion

The study titled "Exploring Women's Political Participation and Empowerment in Rural India" offers critical insights into the transformative role of Panchayati Raj Institutions (PRIs) in reshaping women's roles in local governance. By employing a robust mixed-methods research design, the study effectively captures both the statistical patterns and the lived experiences of 300 elected women representatives from Madhubani district, Bihar. Through structured surveys and in-depth interviews, it examines the extent of political awareness, participation, and empowerment facilitated by the decentralization of governance and the reservation policy for women. The findings strongly suggest that reservation in PRIs has not only increased women's formal entry into political spaces but also substantially enhanced their political knowledge, civic participation, and social recognition. High correlations among political awareness indicators, such as knowledge of Panchayati Raj functioning and training participation, affirm that institutional engagement is closely linked to greater political agency. For instance, Pearson correlation coefficients between political awareness and active participation ranged from $r = 0.763$ to 0.803 , indicating a strong positive relationship. Moreover, the Principal Component Analysis (PCA) revealed that two components—formal engagement and informal political discourse—accounted for 79.63% of the total variance in political engagement patterns, signifying clear thematic groupings in women's political behavior. Women in reserved positions displayed significantly higher confidence in leadership roles, actively challenged gender stereotypes, and inspired political participation among other women. Mean scores showed that women in reserved seats had higher perceptions of breaking gender norms and leadership confidence, with p -values < 0.001 indicating strong statistical significance. These findings were validated through t -tests and ANOVA, clearly supporting the hypothesis that patriarchy continues to shape women's political experiences, but reservation plays a critical role in offsetting its effects.

Empowerment, the second core focus of the study, was also positively influenced by active participation in PRIs. Women who served in elected positions reported increased respect within their families and communities (mean score 3.78 vs. 2.12 among non-participants), greater autonomy in decision-making (3.44 vs. 1.98), and elevated social status. These outcomes were statistically significant and consistently above the neutral threshold, confirming that participation in local governance leads to tangible socio-political empowerment. The empowerment scale's high Cronbach's Alpha rating of 0.841 indicates its great internal consistency, which further supports the dependability of the measurement.

The study concludes that women's empowerment in rural India has been greatly enhanced by the political reservation system in Panchayati Raj. This has helped people go beyond mere symbolic representation and into meaningful engagement, empowering them to become powerful forces for change in governance. Nevertheless, it appears that institutional reforms are insufficient in the face of patriarchal pressures. Building capacity, providing political training, and sensitising communities are all necessary to continue removing structural impediments. Researchers, practitioners, and policymakers can use the study's findings to support efforts to increase women's leadership roles in democratic institutions, and it makes a significant contribution to the ongoing conversation about gender-inclusive governance.

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