

Examining How Education Shapes Socioeconomic Empowerment of Women in Himachal Pradesh

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Abstract

Himachal Pradesh presents a developmental paradox in which high female literacy and substantial higher education participation coexist with uneven empowerment outcomes. This study examines how educational attainment shapes women's socio-economic status in the urban districts of Solan and Sirmour. Using a descriptive and exploratory design, primary data were collected from 196 higher-educated women through a structured 73-item Likert-scale in instrument measuring economic, social, mobility, institutional, and political dimensions of empowerment. Exploratory Factor Analysis (PCA with Varimax rotation) identified ten factors explaining 50.8% of total variance ($\alpha = .857$). Given non-normal distribution, Kruskal–Wallis tests with Monte Carlo significance were applied. Results indicate statistically significant variation across six empowerment dimensions by educational level. Higher and professional education correspond with substantially higher employment rates (reaching over 90% among above-postgraduates), increased representation in senior and government positions, and greater reported participation in household financial decisions. Professionally educated women report stronger reproductive autonomy and higher perceived empowerment through employment. However, control over strategic assets, independent political participation, and unrestricted mobility remain limited across categories. Parental literacy demonstrates a strong association with decision-making autonomy, indicating intergenerational influence. The findings suggest that while higher education enhances selected domains of agency, empowerment outcomes remain structured by household, institutional, and socio-cultural contexts.

Keywords: Women's Empowerment, social-economic status, Structural Constraints, Gender and Development

Introduction

Himachal Pradesh is widely regarded as one of India's most successful hill states in terms of human development achievements, particularly in education and health. Despite these advances, the relationship between women's educational attainment and their substantive empowerment remains complex and uneven. While the state records some of the highest literacy rates among women in northern India, the translation of educational gains into economic autonomy, decision-making authority, and social agency continues to reveal persistent gender inequalities. Over the past two decades, it has achieved rapid growth accompanied by very good human development outcomes. Educational attainment in Himachal Pradesh is among the best in India, with the state recording the lowest share of individuals with no schooling across northern states, cutting across caste and community divides according to NSS, 2011–12 (Bordia et al., 2015). Himachal Pradesh's education sector shows remarkable progress, achieving universal elementary education and low dropouts. Yet, higher education access is limited, and private schools increasingly overshadow government institutions, demanding accountability and shared stakeholder responsibility (Negi, 2017). Despite 91% literacy among women in Himachal Pradesh, only 45% complete higher secondary education, and 73% remain unemployed revealing a disconnect between education and empowerment, particularly among Scheduled Castes and rural populations (Singh et al., 2019). Female literacy in Himachal increased from 20.2% (1971) to 68.1% (2001), sustained by high female labour participation, community support, and gender-sensitive policies, yet dropout rates near 18% at higher levels signal persistent socio-cultural barriers (Bhardwaj, 2018). Despite high female literacy in Himachal Pradesh, districts like Kangra (836) and Una (839) show the lowest child sex ratios, revealing how education, when unaccompanied by social change, may reinforce gender bias through selective technology misuse (Punam, 2021). While women are visible in the workforce, their participation is concentrated in agriculture and informal labor, with limited control over income and property. This paradox, high literacy and labor participation coexisting with enduring gender bias and restricted autonomy, makes Himachal Pradesh a critical case for examining the link between education and empowerment. Within gender and development scholarship, education is frequently viewed as a critical pathway through which women acquire the capabilities necessary to negotiate power relations, access resources, and participate more fully in economic and social life. Education, as recognized globally, has led to empowerment, enabling individuals to expand their capabilities, reduce inequality, and challenge exclusion (Psacharopoulos, 1988; Sen, 1999). For women, it augments agency, improves health outcomes, fosters political engagement, and delays early marriage (Jejeebhoy, 1995; Sundaram et al., 2014). In rural Himachal Pradesh, gender equality within households does not necessarily translate into educational or financial empowerment for women. In Hamirpur, although 96.7% of undergraduate girls report receiving equal rights at home, 53.3% identify financial hardship as the primary obstacle to continuing their education. Their career ambitions remain restrained, with half aspiring to teaching positions and only a small fraction (4%) expressing preference for domestic roles (Bala, 2017). Similarly, in Anun village of Solan, despite substantial progress in formal inclusion, 93% of women possessing identity documents and 73% maintaining personal bank accounts, autonomy remains constrained. Only 20% of women independently make major financial decisions, while two-thirds (66.7%) require spousal consent for personal matters, compounded by a mere 4% access to higher education (Kaur, 2022). Together, these findings underscore the persistent gap between formal equality and substantive empowerment, highlighting how structural financial limitations and sociocultural norms continue to restrict women's agency in rural Himachal Pradesh. The impact of education on empowerment is facilitated by women's social and familial contexts. Studies reveal that women with higher education are more likely to access formal employment, exercise reproductive autonomy, and participate in public life (Kingdon & Unni, 2010; Nayak & Mahanta, 2012). However, these outcomes differ sharply between nuclear and joint families (Kumar & Singh, 2025), in urban Hamirpur women in nuclear families lead 60% of decisions, it also differs across caste and religious groups (Chauhan, 2011), GERs range from just 1.2% among rural poor women to 32.3% among affluent urban women, exposing entrenched caste, class, and regional divides and on paternal and in-law educational attainment (Jejeebhoy & Sathar, 2001). Despite higher literacy among women, access to property rights, decision-making power, and community participation remain limited (Kalita et al., 2021; Kaur, 2022). These variations highlight that empowerment is not a uniform outcome of education but is filtered through kinship structures, socio-religious identity, and class location. The study conceptualizes empowerment as a multidimensional process encircling economic autonomy, bodily control, decision-making power, mobility, and civic participation (Kabeer, 1999; Rowlands, 1996). This multidimensional understanding recognizes that empowerment is not merely the presence of resources but the ability to exercise agency and transform social structures that constrain women's choices. While Himachal Pradesh demonstrates impressive educational and labor force achievements, women's empowerment remains uneven. Even among educated women with identity documents and bank accounts, independent financial decision-making remains rare, and permission from family and spouse is often required for basic mobility (Kaur, 2022). Structural barriers, patriarchal family hierarchies, inheritance systems, and societal norms, continue to restrict women's freedom of choice, despite formal gains in schooling and employment (Das et al., 2015; Agarwal, 1994). Despite considerable educational progress and improvements in human development indicators, the extent to which education translates into substantive empowerment for women in Himachal Pradesh remains insufficiently understood. To understand these dynamics more clearly, the present study moves beyond describing

patterns to analyze how education interacts with social and structural factors to shape women's empowerment. Guided by this framework, the research seeks to address the following questions:

1. What is the current status of women's education across different socio-economic categories in Himachal Pradesh?
2. How does higher education influence women's socio-economic empowerment in Himachal Pradesh?
3. What structural, cultural, and institutional challenges limit women's educational advancement and empowerment, and what measures can effectively address them?

Literature Review

This section presents a comprehensive review of the existing literature. Education is widely recognized as a transformative force capable of enhancing women's autonomy, economic participation, and health outcomes. Within gender and development scholarship, however, empowerment is understood as a complex and multidimensional process shaped by institutional, cultural, and familial contexts rather than a direct outcome of schooling alone. Consequently, the assumption that higher education linearly leads to empowerment has been increasingly questioned by scholars who call for more context-sensitive and intersectional approaches (Kabeer, 2005; Stromquist, 2002). Research on the relationship between women's education and empowerment yields mixed and context-dependent findings. Theoretically, Amartya Sen's Capabilities Approach remains a useful framing: education is a foundational capability that can expand practical freedoms and enable access to health, mobility, and decision-making (Sen, 1999). From this perspective, education expands women's capabilities not only by providing skills and knowledge but also by enhancing their ability to negotiate power relations within households and communities. Nonetheless, empirical studies demonstrate that the translation of schooling into empowerment is neither linear nor uniform; outcomes depend on local gender regimes, household structures, and institutional adaptation (Khurshid & Saba, 2018; Chisamya et al., 2012; Zulfiqar & Kuskoff, 2024). Empirical research across different regional contexts provides important insights into the diverse pathways through which education interacts with gender relations. Cross-national and quasi-experimental investigations illustrate this conditionality. Policy-evaluation and instrumental-variable designs have established causal links between schooling expansions and certain outcomes, yet they also reveal unintended consequences where social structures remain unchanged. Urbina (2022), using an instrumental variable approach based on schooling reforms in Bolivia, Colombia, and Peru, reports a 12 percent decline in rural Bolivian women's autonomy where mass education altered marriage patterns and challenged local hypergamy norms. Similarly, Domínguez Folgueras and Castro Martín (2008), applying discrete-time multinomial logistic regression to Fertility and Family Survey data, showed that rising female education in Spain and Portugal is associated with delayed marriage and increased cohabitation, shifts that reflect broader socio-demographic transitions rather than straightforward empowerment gains. Weitzman's (2017) instrumented regression discontinuity study in Peru, by contrast, finds beneficial health effects, each additional year of maternal education reduced postpartum fever and increased hospital deliveries, highlighting how specific outcomes (e.g., maternal health) may respond more directly to schooling under certain conditions. Survey-based multivariate studies commonly document positive associations between female education and health service use, delayed marriage, and child welfare, but emphasize mediation by wealth, media exposure, and household gender norms. Alemayehu et al. (2015), analysing three Ethiopian Demographic and Health Surveys, report that women's education reduces infant mortality through empowerment pathways, with the strongest effects in wealthier households. Bhandari et al. (2017) and Bhowmik et al. (2024) present parallel findings from Nepal and Bangladesh, indicating that education facilitates increased use of skilled birth care via mechanisms such as decision-making, media exposure, and reductions in violence, though absolute levels of institutional delivery may remain modest (Bhandari et al., 2017). At the same time, comparative work points to substantial heterogeneity. Ang and Lai (2023) found that higher female education does not automatically translate into household decision-making power, only 46 percent of educated Malaysian women reportedly had full decision autonomy compared to 73 percent in Indonesia, underscoring the role of country- and community-level norms. Several studies emphasize how schooling can be instrumentalized or constrained by local social norms. In many South Asian societies, gender norms governing marriage, inheritance, and household authority often mediate the extent to which education translates into genuine agency for women. In South Asia, Chanana (2001) argues that girls' education has historically functioned, in part, as a tool of social control, shaped by concerns about purity, sexuality, and marriageability, rather than a straightforward path to autonomy. Borkotoky and Unisa (2015) document intergenerational impacts of maternal education in India, graduate mothers tend to have fewer children, marry later, and ensure schooling continuity for their children, yet these gains coexist with persistent inequalities. Ethnographic and qualitative accounts add further nuance. Among upwardly mobile Dalits in Andhra Pradesh, education is often pursued for marriage-market advantages rather than for empowerment (Still, 2011), and rural tribal women sampled by Bhandari and Smith (1997) reported limited perceived benefits from prior schooling while nonetheless supporting mother-child literacy programs. Indian macro- and subnational evidence corroborates these mixed patterns. Although female literacy in India has risen significantly, reaching 65.46 percent by 2014 (Gupta), entrenched rural-urban gaps and gendered curricula continue to limit transformative outcomes. Studies report that regional differences, Northeast India's comparatively higher literacy and work participation yet continued dropout and low political representation (Das, 2013; Choudhury & Kumar, 2021), and stark household-level gender bias in educational spending (Saha, 2013) produce differentiated empowerment pathways. Historical analyses add perspective, Caldwell et al. (1985) linked rising female education in South India to changing fertility preferences and modernization aspirations rather than explicit emancipatory intent. 99% of educated women in Malakand assert autonomy in partner choice and attribute 66.5% of empowerment variance to education ($\beta = 0.816$), claims that, if generalizable, highlight the potential explanatory power of schooling in specific settings while underscoring the need to scrutinize sampling and measurement (Daraz et al. 2023). Turning to Himachal Pradesh, available accounts indicate improvements in access and enrolment but persistent quality, retention, and equity issues. There is 18% enrolment increase following NEP-2020 reforms alongside constraints such as faculty shortages and limited digital infrastructure (Verasha and Kumar 2023); Swangla and Puri (2014) documented dropouts in tribal districts attributable to household work, illness, distance, and harassment. Awareness campaigns and schemes like Beti Hai Anmol have been associated with improvements in the female child sex ratio between 2006 and 2011 (Ganju & Ganju, 2015), yet studies also record continuing shortfalls in retention, especially among disabled and marginalized girls (Kumar, 2016), and local fieldwork (Royer, 2013) suggests families may support girls' education for varied reasons ranging from marriage prospects to livelihood opportunities. In sum, while the literature establishes a strong association between women's education and empowerment, it also reveals persistent structural and socio-cultural barriers, especially in contexts like Himachal Pradesh. There is a noticeable lack of intersectional, family-centered, and region-specific quantitative analyses that investigate how paternal and in-law education levels, income diversity, and type of employment influence women's autonomy. These conceptual and empirical gaps underscore the need for a more grounded, multidimensional, and statistically sensitive exploration of the education-empowerment link. In response to these gaps, the present study empirically examines how women's education intersects with diverse socio-economic factors to influence empowerment outcomes in the Solan and Sirmaur districts of Himachal Pradesh. Accordingly, the study pursues the following objectives:

1. To analyze the status of women's education across selected socio-economic categories in Himachal Pradesh.
2. To examine the impact of higher education on the economic and social status of women in Himachal Pradesh.
3. To identify key challenges and propose measures to strengthen women's education and socio-economic empowerment.

Research Methodology

Research Design, Study Area and Sampling Strategy : This study adopted a descriptive and exploratory research design to examine how education influences women's socio-economic empowerment in urban Himachal Pradesh. The research was conducted in the districts of Solan and Sirmaur, which represent important urbanizing regions of the state and exhibit considerable socio-cultural diversity. The selection of these districts was guided by their relatively higher levels of religious heterogeneity as reported in the Census of India (2011), allowing the study to capture variations in women's experiences across different socio-religious settings. The study focused on urban areas in order to capture emerging patterns of women's education, employment, and social participation that are more visible in urbanizing contexts. Primary data were

collected from higher-educated women residing in urban households. A multistage random sampling technique was employed to ensure representative coverage of the study population (C.R. Kothari, 2004). In the first stage, the two districts of Solan and Sirmaur were selected. In the second stage, three urban centres were randomly chosen from each district. From Solan district, the towns of Solan, Nalagarh, and Kasauli were selected, while Paonta Sahib, Nahan, and Rajgarh Nagar Panchayat were selected from Sirmaur district.

In the third stage, three wards were randomly selected from each town. Finally, households were selected using official ward lists to obtain a representative and demographically diverse sample of women respondents.

Instrument Development and Data Collection: Primary data were collected using a structured questionnaire designed to capture multiple dimensions of women’s socio-economic empowerment. The survey instrument was developed using a combined deductive–inductive approach following the scale development framework proposed by Kamakoty and Singh (2023).

An extensive review of literature on women’s education and empowerment was conducted to identify the relevant conceptual dimensions. Based on this review, an initial pool of items was generated to capture different aspects of women’s economic autonomy, social participation, political engagement, and mobility. Women’s empowerment was conceptualized as a multidimensional construct following the framework proposed by Sheikh et al. (2016). The preliminary items were reviewed to remove redundancy and ambiguity. To ensure contextual relevance, consultations were conducted with scholars in gender studies, sociology, and education. These consultations helped incorporate region-specific aspects of empowerment, including social acceptance, mobility, and political awareness.

Subsequently, a panel of domain experts evaluated the relevance of each item using a ten-point scale. Following the sum score criterion proposed by Morgado et al. (2017), items scoring 21 or below (70% of the maximum) were eliminated. The final questionnaire was structured on a five-point Likert scale ranging from strongly agree to strongly disagree.

A pilot survey with 53 respondents which yielded a score of 0.822, was conducted to assess the clarity and reliability of the instrument. Based on the feedback received, minor revisions were made to improve item wording, sequencing, and respondent comprehension before administering the final survey.

Sample Size Determination

The required sample size for the study was determined using Cochran’s correction formula for finite populations as described by C.R. Kothari (2004) and elaborated by Krishnamoorthy (2021). This formula is widely used in survey research involving proportion-based data within finite populations.

$$N \times \frac{z^2 \times p \times (1-p)}{e^2} \times \frac{N-1 + z^2 \times p \times (1-p)}{e^2}$$

$$70,180 \times \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.07)^2} \times \frac{(70,180-1) + (1.96)^2 \times 0.5 \times 0.5}{(0.07)^2} = 196$$

In determining the appropriate sample size, the study adopted a margin of error that balanced statistical precision with practical constraints of field research. The RCSI Sample Size Handbook by R. Conroy (2021) notes that margins of error up to ten percent remain statistically acceptable in survey-based studies where logistical constraints limit the expansion of large samples. Similarly, the MADRID+90 study conducted by Fernández Blázquez et al. (2023) employed a seven percent margin of error at a ninety-five percent confidence level when studying relatively difficult-to-reach populations.

Following this rationale, the present study adopted a seven percent margin of error for determining the final sample size.

Data analysis

Data once collected was subjected to analysis using SPSS. Reliability test was performed using Cronbach’s Alpha and the value was 0.857. Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett’s Test of Sphericity were conducted to assess the suitability of the respondent data for factor analysis prior to the extraction of factors.

Following the assessment of the Kaiser-Meyer-Olkin (KMO) measure and Bartlett’s Test of Sphericity, Principal Component Analysis (PCA) was conducted. In this analysis, components with eigenvalues greater than 1 were retained. The cumulative percentage of variance explained by the retained components was 50.8%, with 10 components having eigenvalues exceeding 1. To enhance the interpretability of the component structure, the "Varimax with Kaiser normalization" rotation technique was applied. Factor loadings above 0.50 were retained, as these values indicated a substantial correlation between the original variables and the extracted components. This approach resulted in the retention of ten factors and forty-four items, and 29 were removed due to above mentioned reasons.

Table 1. Factors & EFA Loadings

Factors	Item description	EFA loadings	Reliability	Standard Deviation	Mean
Bodily and Family Autonomy	You have autonomy over your body regarding the number of children you want	.848	.864	1.77	2.36
	You have autonomy over your body regarding the gap between children	.840		1.79	2.48
	You can discuss freely all the matters with your husband	.656		1.88	2.74
	You have autonomy over your body regarding use of contraceptives	.638		1.77	3.13
	You have autonomy over your body regarding consulting a male doctor	.597		1.58	2.19
	Decisions are taken by your husband	.556		1.77	3.47
Autonomy in Financial and Household Purchases	You take decisions related with selling of property	.756	.838	1.54	3.78
	You take decisions related with purchase of property	.747		1.52	3.63
	You take decisions related with purchase of gifts on special occasions like marriages and festivals for family	.708		1.33	2.04
	You take decisions related with purchase of jewellery	.680		1.45	2.55
	You take decisions related with purchase of gifts on special occasions like marriages and festivals for friends	.596		1.18	1.71
	You are involved in the purchase of everyday non-food items	.538		1.277	2.27

	Purchase of daily wear clothes	.509		1.33	2.05
Accompanied Mobility and Service Access	You can visit hospital or doctor outside city or town accompanied	.819	.860	1.70	2.29
	You can visit bank within the city accompanied	.778		1.72	2.30
	You can visit bank outside the city accompanied	.767		1.8	2.65
	You can visit hospital or doctor within city or town accompanied	.761		1.67	2.23
	You can attend ceremonies or marriages locally accompanied	.643		1.51	1.89
Freedom in Personal and Health-Related Decisions	You have autonomy over your body regarding choosing to have a tattoo on your body	.698	.541	1.87	3.26
	You have autonomy over your body regarding choosing the way you dress up	.691		1.71	2.38
	You have autonomy over your body regarding choosing to cut your hair	.614		1.55	2.27
	You can visit hospital or doctor outside city or town alone	.502		1.76	3.11
Role in Household Financial Decisions	You are involved in the decisions related to paying the rent of the house	.651	.684	1.69	3.58
	Bill of electricity, wated, gas, etc	.622		1.61	3.01
	You spend your salary or a large part of it according to your wish	.595		1.68	2.30
	You have role in finalising the budget of your family	.590		1.59	2.93
Empowerment and Self-Advocacy in Employment	You will not remain silent if the security of your job is threatened on the basis of your gender	.667	.707	1.71	2.23
	You will not remain silent if the security of your job is threatened on the basis of your religion	.641		1.76	2.29
	You were/are free to choose any kind of job you want to do	.620		1.50	1.97
	You are doing job because it makes you feel empowered	.618		1.79	2.21
Autonomy in Social and Political Engagement	You are allowed to attend political meetings	.789	.749	1.68	2.84
	You are allowed to attend political meetings alone	.709		1.67	3.75
	You can attend ceremonies or marriages outside the city alone	.530		1.68	3.41
	You are allowed to attend community social group meetings	.529		1.41	2.34
Autonomy in Institutional Grievance Resolution	You have access to formal institutions (police and court etc) for grievances redressal for family matters	.747	.743	1.69	2.94
	You have access to formal institutions (police and court etc) for grievances redressal for outside the family matters	.672		1.66	3.13
	If you don't have access to formal institution its because of family pressure	.573		1.29	2.00
	If you don't have access to formal institution its because of societal pressure	.550		1.34	2.10
Gendered Expectations in Employment	If you earn more than male members of the family, it hurts their male ego	.631	.604	1.1.	4.44
	You are forced to earn by doing only feminine jobs	.583		1011	4.45
	You are told to compromise between your family and job	.576		1.32	4.13
Financial Autonomy Constraints	You are forced to handover your salary to your in-laws	.883	.821	.47	4.92
	You are forced to handover your salary to your husband	.862		.57	4.88
	You are forced to handover your salary to your parents	.661		.51	4.92

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 57 iterations.

After identifying 10 key factors through EFA, the next step was to assess whether these factors significantly differed across different groups of women (e.g., educational levels, employment status, or socio-economic backgrounds). Given the non-normal distribution of the data, a non-parametric test, the Kruskal-Wallis test, was chosen to determine statistical differences among the groups. Previous studies have applied this non-parametric technique to examine economic outcomes in village-based tourism (Ilona et al., 2022), the impact of educational level on pro-environmental behavior (Nastos et al., 2024), and changes in knowledge and attitudes following needs-based education interventions (Čargonja et al., 2021). Consistent with these methodological precedents, the present study employs the Kruskal-Wallis test to examine statistically significant differences across groups. The following hypotheses were tested:

H₀: Education has no impact on social and economic status of women in Himachal Pradesh

H₁: Education has impact on social and economic status of women in Himachal Pradesh

Since the data did not follow a normal distribution, the Monte Carlo significance (p-value) was considered for interpretation. A significance level of 0.20 (80% confidence interval) was used (Gerrate & Woodworth, 1973).

However, recognizing that education alone may not be the sole determinant of women's empowerment, the study also examined the relationship between other key demographic variables and socio-economic status. The additional variables analyzed included, Religion of the respondent, Age, Marital status, Education of family members (both paternal and in-laws), Number of earning members in the family (both paternal and

in-laws), Type of family (nuclear/joint), Income of the respondent and household income, Type of employment (formal/informal/self-employed/unemployed).

These variables were tested to determine whether factors beyond education also played a role in shaping women's autonomy, financial independence, and empowerment.

After identifying significant factors through the Kruskal-Wallis test, crosstabulation analysis was performed to further explore the relationship between education and key socio-economic variables. Additionally, crosstabulation was used to analyze how other demographic variables influenced these factors, offering a broader understanding of women's empowerment.

Results

This section presents the empirical findings addressing the three research questions. It examines (i) the status of women's education across socio-economic categories in Himachal Pradesh, (ii) To examine the impact of higher education on the economic and social status of women in Himachal Pradesh, and (iii) the structural and institutional constraints influencing these outcomes. Results are reported thematically, with interpretation reserved for the Discussion section. Before presenting the substantive findings, the statistical suitability of the dataset for identifying empowerment dimensions was assessed. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity were conducted to evaluate whether the variables included in the study were appropriate for factor analysis. The KMO index, ranges from 0 to 1, with a value of 0.50 or higher considered adequate for factor analysis. Additionally, Bartlett's Test of Sphericity was significant ($p < .05$), confirming the appropriateness of the data for factor analysis. The results of these tests are presented in Table 1.

Table 1. KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.653
Bartlett's Test of Sphericity	Approx. Chi-Square	8030.610
	df	2628
	Sig.	.000

Following the extraction of empowerment dimensions through exploratory factor analysis, the Kruskal-Wallis test was applied to examine whether statistically significant differences exist across educational categories for the identified empowerment factors. The results indicated that 6 out of 10 factors were statistically significant ($p < 0.20$, Monte Carlo Sig.), suggesting a strong association between education and women's socio-economic status, leading to the rejection of the null hypothesis and acceptance of the alternate hypothesis, which was, education has impact on economic and social status of women in Himachal Pradesh. The results of this test are summarised in Table 2.

Table 2. Test Statistics

Factor no.	Factor Name	p-value	Significant
1.	Bodily and Family Autonomy	.113	Significant
2.	Autonomy in Financial and Household Purchases	.053	Significant
3.	Accompanied Mobility and Service Access	.209	Not Significant
4.	Freedom in Personal and Health-Related Decisions	.114	Significant
5.	Role in Household Financial Decisions	.270	Not Significant
6.	Empowerment and Self-Advocacy in Employment	.002	Significant
7.	Autonomy in Social and Political Engagement	.123	Significant
8.	Autonomy in Institutional Grievance Resolution	.087	Significant
9.	Gendered Expectations in Employment	.848	No Significant
10.	Financial Autonomy Constraints	.619	No Significant

The results of the Kruskal-Wallis test indicate that variations in women's educational attainment are associated with statistically significant differences across several dimensions of empowerment captured through the extracted factors. While some domains, such as bodily autonomy, employment-related self-advocacy, and institutional grievance access, display significant variation across educational categories, other areas including mobility and financial constraints exhibit weaker statistical differentiation. These patterns suggest that education influences multiple aspects of women's socio-economic positioning, though its effects are not uniform across all domains of empowerment. Building on this statistical foundation, the following sections present the descriptive findings that address the study's objectives in greater detail.

1. Status of Women's Education Across Socio-Economic Categories

Data presented the consolidated distribution of educational attainment across religion and district. The overall educational profile of respondents is concentrated at the graduate (41.2%) and postgraduate (41.2%) levels, while 9.3% report diploma qualifications and 8.2% possess education above postgraduate level. Nearly half of the respondents (46.9%) have pursued professional courses.

Religious variation shows relatively comparable representation of Muslim and Hindu women across graduate and postgraduate levels. Sikh respondents display greater dispersion, including a comparatively higher proportion at the above-postgraduate level (21.1%). The "Others" category reflects concentration in postgraduate and above-postgraduate education, though with limited representation.

District-level patterns indicate clear spatial differentiation. Solan district demonstrates a stronger concentration of postgraduate degree holders (50.0%), whereas Sirmaur shows greater representation at the graduate level (50.0%). Diploma attainment is slightly higher in Sirmaur (10.0%) compared to Solan (8.7%).

Overall, while the sample reflects substantial participation in higher education, variation persists across religious and district contexts, and professional education remains below half of total attainment. These patterns establish the baseline educational landscape within which subsequent empowerment outcomes are examined.

2. Impact of higher education on the economic and social status of women in Himachal Pradesh

Employment participation increases across educational categories. While employment rates remain similar at diploma (44.4%) and graduation levels (42.5%), they increase sharply among postgraduates (71.3%) and reach 93.8% among respondents above postgraduate level. The nature and quality of employment also vary by education. Private sector engagement increases from 16.7% at diploma level to 56.3% among the highest educational category. Government employment is most concentrated among above-postgraduates (37.5%). Senior private roles and permanent government positions similarly show higher representation among postgraduates and above-postgraduates. Overall, higher education is associated with greater labour force participation and comparatively higher representation in senior employment categories. Data shows variation in household authority and mobility across educational levels. The proportion reporting that husbands "never" take decisions alone increases markedly from 16.7% among diploma holders to over 60% among graduates and above-postgraduates. Mobility autonomy also shows differentiation. While 55.6% of diploma holders report that they "never" visit hospitals alone, this declines to 18.8% among respondents above postgraduate level. However, the share reporting "always" visiting alone remains relatively similar across categories.

Women with professional education report higher reproductive autonomy (68.1% “always”) compared to those with general education (48.5%). Autonomy in consulting a male doctor is also slightly higher among professionally educated respondents (57.1%) than among those with general education (52.4%). These patterns indicate that professional educational background corresponds with higher reported levels of bodily decision-making autonomy within the sample. Data shows variation in institutional access and employment-related empowerment across type of education. Women with professional education report higher consistent access to formal institutions (41.8%) compared to those with general education (29.1%). However, structural pressures remain substantial. Among those reporting barriers, family and societal pressure are more frequently cited, including by professionally educated respondents. Perceived empowerment through employment is notably stronger among professionally educated women (75.8%) relative to those with general education (56.3%). While the preceding findings indicate meaningful associations between higher education and multiple dimensions of empowerment, the results also reveal areas where educational attainment alone does not fully account for variation in women’s socio-economic status. Empowerment outcomes are shaped not only by individual educational achievement but also by structural and contextual factors operating at the household and community levels.

Variation in women’s autonomy is evident across religious, marital, and intergenerational educational contexts. Parental literacy differs across religion, with Muslim respondents reporting lower maternal (49.0%) and paternal (55.1%) literacy compared to other groups, while government employment is highest among Sikhs (31.6%) and unemployment remains high among Hindus (45.1%). Independent civic participation remains limited across religions despite moderate variation in mobility. Marital status shows differentiated autonomy patterns: contraceptive autonomy is highest among married women with children (53.2%) compared to married (31.4%) and unmarried women (19.7%), yet economic control over property remains low overall, with only 16.5% reporting independent authority in property purchase and sale decisions. Intergenerational education demonstrates strong associations with women’s agency. Among women who always participate in festive gift decisions, 68% have literate mothers and 76% have literate fathers. Contraceptive autonomy is reported by 37.9% of women with literate mothers compared to 27.8% with illiterate mothers, while 85.3% of women who always exercise contraceptive autonomy have literate fathers. Similarly, 89.3% of women always allowed to attend community meetings and 84.4% of those attending political meetings alone come from literate paternal households. Despite these associations, overall political autonomy remains low (23.2% always), and a substantial proportion report never having contraceptive autonomy (40.2%). These findings collectively indicate patterned variation in women’s social, bodily, and economic autonomy across structural and intergenerational contexts.

3. Key Challenges and Measures to Strengthen Women’s Education and Socio-Economic Empowerment

The empirical findings of the study reveal that while higher education is associated with differentiated socio-economic positioning, several structural constraints continue to moderate its transformative potential. One of the primary challenges emerging from the analysis is the limited translation of educational attainment into proportionate labour-market advantages. Despite substantial participation at graduate and postgraduate levels, particularly in certain districts, entry into senior or financially secure positions remains uneven. This pattern suggests the persistence of structural labour-market segmentation, where credential acquisition does not uniformly guarantee economic mobility. A second constraint pertains to restricted control over strategic economic assets. Although educational advancement corresponds with greater participation in selected household decisions, ownership and control over property, land, and major financial resources remain comparatively limited. This indicates that entrenched property regimes and gendered asset norms operate independently of formal qualifications, thereby limiting the material consolidation of empowerment. The findings also highlight the persistence of normative constraints on mobility and public engagement. Variations across marital status, religion, and family background suggest that women’s agency remains negotiated within relational and cultural frameworks. In this regard, education appears to function as an enabling resource embedded within household authority structures rather than as an autonomous determinant of expanded freedom. Further, the significance of parental literacy observed in the analysis points to the intergenerational transmission of socio-cultural capital. Women from more educated parental backgrounds demonstrate comparatively stronger autonomy, indicating that empowerment trajectories are shaped not only by individual attainment but by inherited social positioning.

In light of these challenges, strengthening women’s socio-economic empowerment requires multi-sectoral approaches that move beyond educational expansion alone. Enhancing structured education-to-employment pathways, improving access to economic assets through gender-sensitive financial and property reforms, and promoting community-level norm engagement initiatives may help reduce the disconnect between credentials and agency. Additionally, adult literacy and family-focused educational interventions could generate intergenerational reinforcement effects, addressing structural disparities at their roots. The findings thus underscore the need for integrated policy frameworks that align higher education, labour market systems, and social institutional reforms to foster more sustained and inclusive socio-economic positioning for women. These findings reflect the conditional relationship between education and empowerment, consistent with capability-based and relational frameworks

Discussion

The findings indicate that women in the selected districts of Himachal Pradesh demonstrate strong participation in higher education, with graduation and post-graduation constituting the dominant categories across religious and regional groups. This trend is consistent with state-level data reflecting Himachal Pradesh’s high female enrolment and favorable Gender Parity Index in tertiary education (All India Survey on Higher Education [AISHE], 2021–22; Ministry of Statistics and Programme Implementation [MoSPI], 2023). In capability terms, education is conceptualized as an enabling resource that is associated with expanded opportunities and social positioning (Sen, 1999; Nussbaum, 2000). Empirical research in India confirms that higher educational attainment is positively associated with enhanced decision-making power and social mobility (Malhotra, Schuler, & Boender, 2002; Jejeebhoy & Sathar, 2001).

Nevertheless, the distribution of educational attainment reveals significant intra-religious and district-level variation. Such disparities reflect the influence of localized institutional ecosystems, infrastructure, and socio-economic opportunity structures rather than purely individual effort (Dreze & Sen, 2002; World Bank, 2012). Studies of regional inequality in India consistently show that access to higher education is strongly correlated with urban proximity, institutional density, and public investment (Tilak, 2015; Azam & Kingdon, 2013). Thus, women’s educational advancement must be interpreted within broader spatial development dynamics.

Religious variation in educational patterns further supports intersectional interpretations. While Muslim women in this sample exhibit visible participation in higher education, national-level assessments have documented structural disadvantages affecting Muslim access to quality schooling and professional education (Sachar Committee, 2006; Desai & Kulkarni, 2008). Recent evidence also confirms persistent educational and economic disparities across religious groups in India (Pew Research Center, 2021). These findings are consistent with Dyson and Moore’s (1983) argument that gender outcomes are embedded within kinship and community systems.

Importantly, educational advancement does not proportionately translate into economic empowerment. Despite substantial representation in higher education, most respondents remain clustered in lower income brackets. Macro-level evidence demonstrates persistent female labor market constraints and occupational segregation in India (International Labour Organization [ILO], 2018; Periodic Labour Force Survey [PLFS], 2022–23). Klasen and Pieters (2015) show that rising female education has not generated proportional employment growth due to

structural labor market rigidities and social norms. Similarly, Das and Desai (2003) highlight that increased schooling does not automatically lead to economic participation because of enduring patriarchal constraints. These findings reinforce Kabeer's (1999, 2005) framework that empowerment requires not only resources but institutional conditions enabling agency.

Employment patterns reveal concentration in informal and private-sector roles, with limited access to stable government employment. Women in South Asia are disproportionately represented in informal employment, which limits income security and bargaining power (Bonnet, Vanek, & Chen, 2019; ILO, 2018). Heath and Jayachandran (2017) further emphasize that social norms restrict women's access to formal, higher-paying occupations even when education levels rise. Hence, workforce participation alone cannot be equated with substantive autonomy.

Mobility and civic participation indicators show continued socio-cultural constraints. Gendered restrictions on independent movement in public spaces remain a key barrier to empowerment. Research demonstrates that women's mobility is closely linked to social status and public participation (Hanson, 2010; World Bank, 2012). The OECD (2019) Social Institutions and Gender Index documents that discriminatory social norms continue to restrict women's freedom of movement across South Asia. Cornwall and Goetz (2005) argue that meaningful political voice requires both formal rights and actual access to public space, which remains unevenly distributed.

Marital status adds another layer of differentiation. Married women, especially those with children, display higher participation in certain domestic decisions. Agarwal's (1997) bargaining model illustrates how women's authority often strengthens with motherhood due to enhanced relational legitimacy. Jejeebhoy (2000) similarly finds that women's autonomy increases with marital duration and reproductive status. However, participation declines sharply in strategic economic matters such as property decisions, where male dominance persists (Agarwal, 1994; Kelkar, 2011). This distinction supports Sen's (1999) argument that everyday participation does not equal control over productive assets. Unmarried women show comparatively lower participation in property-related decisions, reflecting patrilineal inheritance systems. Widowed women often report greater autonomy but face economic vulnerability, as documented by Chen (2000). These patterns affirm Kabeer's (1999) conceptualization of empowerment as context-specific and relational.

Intergenerational influences further strengthen the explanation. Women with educated parents—particularly mothers—report stronger agency across several domains. Maternal education has been consistently linked to improved autonomy and demographic outcomes (Desai & Johnson, 2005; Jejeebhoy & Sathar, 2001). Caldwell (1980) earlier established that parental education transforms intra-family authority patterns. Paternal education likewise shapes daughters' mobility and aspirations, reflecting Bourdieu's (1986) theory of cultural capital transmission.

Overall, the accumulated evidence confirms that educational expansion in Himachal Pradesh represents meaningful progress but remains mediated by structural inequalities, labor market segmentation, kinship systems, and socio-cultural norms. Consistent with Sen (1999) and Kabeer (2005), empowerment emerges from the interaction between resources, institutional structures, and agency rather than education alone.

Conclusion

This study examined the impact of education on the economic and social status of women in selected districts of Himachal Pradesh. While the sample reflected considerable participation at graduate and postgraduate levels, the findings indicated that educational attainment corresponds with differentiated, rather than uniform, empowerment outcomes. Higher education is associated with stronger representation in formal and senior employment categories and with comparatively greater participation in selected domains of household decision-making and bodily autonomy. However, these gains are not consistently reflected in control over strategic economic assets or independent civic authority. Patterns of autonomy remain uneven across marital status, religious context, and intergenerational educational background, suggesting that agency operates within relational and institutional frameworks rather than as a direct extension of individual credentials. The analysis further highlights the relevance of parental literacy and household structure in shaping women's reported decision-making participation, indicating that educational advantage may operate intergenerationally and contextually. At the same time, the persistence of mobility constraints and limited property control across categories underscores the continued salience of structural and normative boundaries. Taken together, the findings contribute region-specific empirical evidence demonstrating that educational expansion, even within relatively high-participation contexts, corresponds with selective forms of socio-economic positioning rather than comprehensive empowerment. Education appears to function as an enabling resource embedded within labor market configurations, kinship systems, and community norms. The study thus advances the literature by shifting attention from access to higher education alone toward the differentiated patterns through which educational attainment is situated within broader structural environments. Future research may extend this inquiry through longitudinal, comparative, or multivariate designs to further clarify the conditions under which education corresponds with expanded agency.

Theoretical and practical implications

The findings suggest that higher education functions as a conditional resource rather than a uniform pathway to empowerment. While educational attainment corresponds with stronger representation in formal employment and certain dimensions of decision-making, its association with asset ownership and independent civic authority remains uneven. This supports a multidimensional understanding of empowerment in which gains are domain-specific rather than cumulative. Variations across marital status, religion, and parental literacy further indicate that women's socio-economic positioning is shaped by relational and intergenerational contexts. The observed association between parental education and women's autonomy underscores the importance of incorporating familial cultural capital into empowerment frameworks. Overall, the study reinforces relational and capability-based perspectives that situate education within household, labour-market, and institutional structures rather than treating it as a linear determinant of agency.

The evidence indicates that expansion of higher education alone does not ensure comprehensive socio-economic advancement. Strengthening structured linkages between higher education institutions and regional labour markets in Himachal Pradesh may improve the translation of qualifications into secure employment. Skill alignment, internship pathways, and sector-specific integration could help reduce credential underutilization. The limited control over strategic assets suggests the need to complement educational expansion with measures that enhance women's access to property, financial resources, and institutional support systems. Additionally, the influence of marital and religious contexts highlights the importance of community-level engagement initiatives that address normative constraints alongside formal educational progress. Given the intergenerational association identified in the study, parallel investments in adult literacy and family-level educational initiatives may further reinforce empowerment trajectories. Coordinated action across education, labour, and social development sectors appears essential for sustaining gains associated with women's higher education.

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Authors' contribution to the paper: -

Shaba Parveen was responsible for the conception and execution of this research. She conducted the fieldwork and data collection, organized and analyzed the data, and took the lead in writing the manuscript, including the research methodology, results, and discussion sections. She also contributed significantly to the overall structure and interpretation of the study.

Er. Shubham Sharma contributed through his expertise in data analysis and supported the structuring of the literature review and methodology sections. He also assisted in reviewing relevant literature to ensure the comprehensiveness and coherence of the study.

Dr. Rakesh Shukla provided critical inputs through meticulous review of the manuscript and offered valuable insights that strengthened the analytical depth and academic rigor of the paper.

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ChatGPT has been used for grammar and paraphrasing purposes only.

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