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Structural Dominance of Tribhuvan University in the Higher Education Landscape of Nepal

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Abstract

Higher education system in Nepal has 24 universities and 1,432 campuses with an enrolment of 633,053 students (2023/24) but the structural concentration is still very high. This study uses the recent secondary data from the University Grants Commission's EMIS 2023/24 report, focusing on the dominance of Tribhuvan University (TU) in terms of enrollment, graduation, and institutional capacity. The results show that TU had a total enrolment of 491,299 students and produced 74,149 graduates, accounting for 76% of the nation's total higher education enrolment and 74% of the nation's higher education graduates. When the numbers are broken down by province, Bagmati Province has 624 campuses (43.58%) further emphasizing the importance of TU's geographic location. The largest number of students is enrolled in the Management faculties (282,836) followed by the Education faculties (139,417) where TU has the highest number in both. Although there has been improvement in gender equity (GPI = 1.3), there is ecological imbalance with 55.47% of students in the Hill regions and 2.56% in Mountain. The funds allocated to universities have also increased from NPR 9.3 billion (2017/18) to NPR 17.46 billion (2023/24), however, allocation of resources is still conducted on TU-centric basis. This concentration also gives rise to systemic risk, such as low curricular innovation, quality assurance issues, and lack of access for non-Hill/non-Bagmati population. Although TU has a historical basis of legitimacy and infrastructure, the study suggests the following conditions for more sustainable higher education reform: diversified institutional capability, provincial decentralisation and equitable allocation of resources. The policy suggestions are about formula-based funding, strengthening of universities in the region, and balance mechanisms at the faculty level.

Keywords: Tribhuvan University, higher education dominance, enrollment concentration, institutional centralization

Introduction

The higher education system of Nepal has experienced a significant transformation in the last 30 years, from one university to a several institutional systems, with 24 universities and medical academies catering to more than 633,000 students (University Grants Commission (UGC), 2024). Even with this structural diversification, the overall institutional system is still highly concentrated with Tribhuvan University (TU) dominating in terms of enrolment, number of graduates and institutional capacity. Recent statistics suggest that in 2023/24, 491,299 students were enrolled in TU, accounting for 77.61% of the total university enrollment in that same year, while 74,149 of the graduates enrolled in the university were approximately 76% of the total graduates in the country (UGC, 2024). This focus has remained despite policy changes that sought to decentralise provision of higher education and to boost the standing of provincial universities.

The demographic profile of higher education participants has shifted significantly, with female participation increasing from 19% to 42% over thirty years, resulting in a Gender Parity Index (GPI) of 1.3 favoring women (Acharya, 2021). This feminization of enrollment reflects improved secondary-level gender parity and broader social changes, yet technical and vocational higher education remains underdeveloped, particularly in rural areas (Acharya, 2021). Concurrently, management and education faculties dominate enrollment, accounting for 282,836 and 139,417 students respectively, while agriculture represents only 0.15% of enrollment (Ministry of Finance [MoF], 2026). Nearly 80% of students concentrate in management, education, and humanities/social sciences streams, indicating limited disciplinary diversification (MoF, 2026).

Geographic disparities further compound structural imbalances. Bagmati Province hosts 624 campuses (43.58% of all campuses), reinforcing TU's geographic centrality, while the Mountain region accommodates only 2.56% of students despite representing significant territorial area (UGC, 2024). The Hill region hosts 55.47% of students, creating pronounced ecological inequality in access (UGC, 2024). Such disparities align with broader patterns of educational disadvantage identified in Nepal's higher education sector, where geographical, economic, and gender dimensions intersect to create layered exclusion (Khanal & Gaulee, 2022). Academic performance dimensions—research and publication, innovation, interactive learning, and capacity building—remain unevenly distributed across institutions, with significant implications for quality and equity (Paudel, 2021).

Despite nominal expansion of Nepal's higher education system, Tribhuvan University's overwhelming dominance creates systemic vulnerabilities that undermine quality, equity, and innovation. TU's 77.61% enrollment concentration represents not merely historical legacy but active structural centralization, with 67.5% of public financing allocated to TU while other universities and programs receive only 32.5% (MoF, 2026). This resource concentration perpetuates TU's institutional advantage while constraining the development of emerging universities, particularly provincial institutions established under federal restructuring (British Council Nepal, 2025). Knowledge management practices in higher educational institutions show strong associations with academic performance, yet TU's dominance may constrain knowledge diffusion across the system (Paudel et al., 2023).

The consequences of this dominance are multifaceted. First, limited curricular innovation occurs as TU's programs and pedagogical approaches dominate the system, reducing competitive pressure for pedagogical experimentation (Paudel, 2021). Second, quality assurance becomes challenging when one institution serves nearly 80% of students, overwhelming internal quality mechanisms and external regulatory capacity (Paudel et al., 2023). Third, access remains inequitable for non-Hill and non-Bagmati populations, who face disproportionate barriers to enrollment despite national GPI improvements (Acharya, 2021). Fourth, research capacity remains concentrated, with TU publishing 4,638 papers over four years while other universities produce substantially fewer outputs, limiting national research diversity (Tribhuvan University, 2025). Higher education initiative challenges, particularly in leadership and governance, further complicate decentralization efforts, as evidenced by Nepal Open University's experience with institutional establishment (Khanal et al., 2021). Students in Nepali higher education institutions face significant challenges including digital divides, resource constraints, and quality concerns that may be exacerbated by institutional concentration (Shrestha et al., 2024).

Post-pandemic recovery patterns reveal additional complications, with enrollment reaching historic peaks in 2080/81 after sharp

COVID-19 declines, yet the recovery predominantly benefits TU rather than diversifying across the system (World Bank, 2024). Financing higher education in Nepal remains qualitatively constrained, with public allocation patterns reinforcing historical institutional advantages rather than supporting emerging institutions (Joshee, 2019). Innovative strategies for human resource development through higher education have been proposed but implementation remains limited, with TU's dominance continuing to shape system outcomes (Asian Development Bank [ADB], 2014).

Existing literature on Nepal's higher education has addressed gender participation (Acharya, 2021), academic performance dimensions (Paudel, 2021), knowledge management practices (Paudel et al., 2023), and transnational education (British Council Nepal, 2025), yet few studies have systematically analyzed Tribhuvan University's structural dominance using recent comprehensive secondary data. The UGC EMIS 2023/24 report provides unprecedented detail on enrollment, institutional distribution, and financing, but this data has not been fully synthesized in scholarly analysis of TU's dominance. Previous studies relying on older datasets cannot capture post-federal restructuring dynamics or recent enrollment recovery patterns following COVID-19 disruptions (World Bank, 2024).

Furthermore, while geographic disparities have been identified conceptually (Khanal & Gaulee, 2022), quantitative analysis of provincial campus distribution and ecological enrollment patterns using 2023/24 data remains absent. The relationship between TU's financing advantage (67.5% of public allocation) and its enrollment dominance (77.61%) has not been empirically examined in recent scholarship. Similarly, the implications of TU's 77% graduate share for national skills development and workforce preparation remain underexplored (MoF, 2026). UNESCO's 2026 country case study provides contextual framework for understanding Nepal's education pipeline but does not specifically analyze TU's institutional concentration (UNESCO Global Education Monitoring Report, 2026).

This article argues that Tribhuvan University's structural dominance in Nepal's higher education system represents a critical barrier to sustainable educational development, creating systemic risks that include limited curricular innovation, quality assurance challenges, inequitable access, and concentrated research capacity. While TU's scale reflects historical legitimacy and infrastructure investment, the persistence of 77.61% enrollment concentration despite 24-university expansion indicates failure of decentralization policies. The article demonstrates that sustainable higher education reform requires diversified institutional capacity, provincial decentralization, and equitable resource allocation to address these structural imbalances. This study pursues three specific objectives:

1. To examine recent enrollment and institutional trends demonstrating Tribhuvan University's structural dominance in Nepal's higher education system using UGC EMIS 2023/24 data.
2. To assess gender, provincial, and ecological disparities in access and participation that result from or are exacerbated by TU's concentration.
3. To identify structural challenges related to financing allocation, graduate output concentration, and academic performance distribution that emerge from TU's dominance.

This study contributes to higher education policy discourse in Nepal by providing empirical evidence of TU's dominance using the most recent comprehensive secondary data. The findings inform policy debates on formula-based funding, regional university strengthening, and faculty-level balance mechanisms. For international comparative scholarship, Nepal's

experience offers insights into post-federal higher education restructuring challenges in developing contexts. For institutional planners, the analysis highlights risks of over-centralization and benefits of diversification strategies. Finally, the study establishes a baseline for monitoring future decentralization progress, enabling assessment of whether emerging universities can reduce TU's concentration over time.

Methodology

Research Design

This study employs a quantitative descriptive research design grounded in secondary data analysis (SDA) methodology to examine Tribhuvan University's structural dominance within Nepal's higher education system. Secondary data analysis utilizes existing data collected by other researchers or institutions for different purposes to answer new research questions (Heavey, 2019; Enge, 2026). This design is appropriate for institutional-level analysis where comprehensive national datasets exist but have not been systematically synthesized to address questions of structural concentration. The quantitative descriptive approach identifies and describes trends, variation, and patterns in populations, answering questions about "who, what, where, when, and to what extent" (Institute of Education Sciences, 2023). This nonexperimental design aligns with Journal Article Reporting Standards for quantitative research, which recommend clear specification of research design, analytic methods, and data quality assessment (American Psychological Association, 2024). SDA is cost-effective and efficient for utilizing existing data when comprehensive national datasets are unavailable for primary collection (ScienceDirect, 2024), and modified Knowledge Discovery in Databases processes provide practical frameworks for secondary analysis in educational research (ERIC, 2020).

Data Sources

Primary Data Source

The University Grants Commission (UGC) Education Management Information System (EMIS) Report 2023/24 serves as the primary data source. This government-published report represents the most comprehensive and recent national dataset on Nepal's higher education system, systematically collecting institutional, enrollment, faculty, financing, and graduate outcome data from all 24 universities and 1,432 campuses across Nepal (University Grants Commission, 2024). The EMIS data quality includes completeness (100% coverage of recognized institutions), accuracy (validated through institutional verification), timeliness (fiscal year 2023/24), reliability (standardized EMIS protocols), and accessibility (publicly available through UGC channels).

Secondary Data Sources

Contextual and comparative data are drawn from four authoritative sources. The UNESCO Global Education Monitoring Report 2026 Nepal country case study provides longitudinal context on secondary-to-tertiary transition patterns and gender parity trends (UNESCO Global Education Monitoring Report, 2026). The Ministry of Finance Economic Survey 2025/26 contains enrollment trends from fiscal years 2023/24 and 2024/25, enabling assessment of post-pandemic recovery (Ministry of Finance, 2026). The Tribhuvan University Vision 2030 strategic document provides TU's self-reported enrollment data and research output metrics for comparison with UGC EMIS data (Tribhuvan University, 2025). The World Bank Nepal Higher Education Reforms Project P171516 2024 contains financing allocation data and policy reform context (World Bank, 2024).

Data Selection Criteria

Inclusion criteria require data representing fiscal year 2023/24 or the most recent complete reporting period, covering national-level post-secondary tertiary education, including quantitative measures of enrollment, institutional distribution, or financing, and being

from official government, university, or international organization sources. Exclusion criteria specify data from fiscal years prior to 2017/18, school-level education data unless used for transition context, qualitative narrative data without quantitative measures, and data from non-recognized institutions are excluded.

Variables and Measures

Independent Variable

Institutional identity is operationalized as a binary classification distinguishing Tribhuvan University (coded = 1) from all other universities (coded = 0), enabling direct comparison between TU's metrics and aggregate metrics of all other universities.

Dependent Variables

Enrollment Concentration is measured as total student enrollment at each institution in absolute count and as percentage of national total, calculated as: Enrollment Share (%) = (Institutional Enrollment / National Total Enrollment) × 100. Graduate Output Concentration measures total graduates from each institution as absolute count and percentage of national total. Institutional Distribution captures the number of campuses affiliated with each university as absolute count and percentage of total campuses. Gender Participation is operationalized as the Gender Parity Index (GPI): GPI = Female Enrollment / Male Enrollment. Provincial Distribution measures campuses and enrolled students by province (Bagmati, Koshi, Lalitpur, Gandaki, Karnali, Nepali Pradesh) as absolute counts and percentages. Ecological Distribution captures student enrollment by ecological region (Mountain, Hill, Terai) as percentages of national total. Faculty Distribution measures enrollment by academic faculty (Management, Education, Humanities, Science, Engineering, Agriculture, Health Sciences, Law) as absolute counts and percentages. Financing Allocation measures public financial allocation to universities in Nepali Rupees (NPR) millions and as percentage of total university financing.

Control Variables

Temporal factors are controlled through specification of fiscal year 2023/24. Geographic factors are controlled through province and ecological region classification. Institutional factors include university type (public vs. private) where data available.

Data Analysis Procedures

Quantitative Descriptive Analysis

Data analysis follows a four-stage systematic process consistent with modified KDD frameworks for secondary data analysis (ERIC, 2020). Stage 1: Data Preparation and Cleaning involves extraction of relevant variables from UGC EMIS PDF into structured spreadsheet format, verification of data integrity through cross-checking with secondary sources, resolution of discrepancies through source prioritization (UGC EMIS preferred), and creation of coded variables for binary and categorical measures. Stage 2: Descriptive Statistical Computation includes calculation of frequencies and percentages for categorical distributions, computation of proportions and ratios for concentration measures, calculation of GPI using Formula, and computation of percentile distributions for ecological and provincial disparities. Stage 3: Comparative Analysis employs cross-tabulation of institutional identity with enrollment, graduates, and campuses, percentage comparisons between TU and aggregate non-TU institutions, ratio analysis for financing concentration (TU allocation share vs. enrollment share), and disparity indices for provincial and ecological distribution. Stage 4: Pattern Identification and Interpretation identifies concentration patterns (e.g., 77.61% enrollment in single institution), documents distributional imbalances (e.g., Bagmati Province's 43.58% campus share), characterizes faculty-level concentration (Management + Education = 422,253 students,

66.7% of total), and synthesizes systemic vulnerability indicators.

Analytical Techniques

Percentage analysis expresses distributions, concentrations, and disparities as proportional measures enabling comparison across variables with different scales. Ratio analysis is used for GPI computation and financing-enrollment ratio comparison. Cross-sectional comparison employs single-timepoint analysis comparing TU with all other institutions simultaneously. Trend contextualization utilizes limited temporal comparison using Economic Survey 2025/26 data (2023/24: 672,489 students; 2024/25: 745,770 students) to contextualize 2023/24 findings within post-pandemic recovery trajectory (Ministry of Finance, 2026).

Ethical Considerations

This study adheres to ethical standards for secondary data analysis: data authenticity (all sources are official, publicly available documents from recognized institutions), no participant identification (EMIS data are aggregated at institutional level with no individual identifiers), citation and attribution (all data properly attributed with complete citations), and transparency (data sources, selection criteria, and analytical procedures fully documented) (American Psychological Association, 2024; ScienceDirect, 2024).

Limitations of Secondary Data

Temporal constraints limit the study as data represent fiscal year 2023/24 only. Variable constraints mean analysis is limited to variables collected in the EMIS report. Aggregation level limitations preclude analysis of intra-university variation. Contextual limitations arise because quantitative EMIS data provide limited explanation for observed patterns. These limitations are acknowledged transparently and indicate directions for future research.

Replicability and Transparency

Replicability Procedures

To ensure replicability consistent with open science practices (ERIC, 2023), data source documentation provides complete URLs and publication dates, analytical procedure specification explicitly documents formulas and computational methods, variable definitions clearly define all variables with measurement operationalization, and selection criteria transparency explicitly states inclusion and exclusion criteria.

Data Availability

Primary data source UGC EMIS 2023/24 is publicly accessible at: https://giwmscdnone.gov.np/media/pdf_upload/EMIS%202023-24_mu8su0b.pdf. All analytical procedures are documented sufficiently to enable independent verification of results.

Results and Discussion

Institutional Concentration and Enrollment Dominance

The empirical analysis of UGC EMIS 2023/24 data reveals unprecedented levels of institutional concentration in Nepal's higher education system, with Tribhuvan University exhibiting structural dominance that fundamentally shapes system architecture. Tribhuvan University enrolled 491,299 students in 2023/24, representing 77.61% of total national higher education enrollment of 633,053 students (University Grants Commission, 2024). This concentration metric exceeds typical thresholds for institutional dominance in comparative higher education systems, where single-institution enrollment shares above 50% are considered indicative of extreme centralization (Asian Development Bank, 2014). The second-largest university, Purbanchal University, enrolled only 39,780 students (6.28%), while Pokhara University enrolled 35,200 students (5.56%), creating a hierarchical structure where TU's enrollment is 12.4 times larger than Purbanchal University and 13.9 times larger than Pokhara

University (University Grants Commission, 2024).

Campus distribution patterns corroborate enrollment concentration, with TU operating 1,115 campuses out of 1,432 total national campuses, representing 77.86% of institutional infrastructure (University Grants Commission, 2024). This campus dominance enables TU to control curriculum standardization, examination systems, faculty employment patterns, and quality assurance mechanisms across the majority of Nepal's higher education landscape. The disparity is particularly striking when examining constituent campus distribution, where TU operates 62 constituent campuses compared to Kathmandu University's 7, Purbanchal University's 9, and most provincial universities operating only 1 constituent campus each (University Grants Commission, 2024). Constituent campuses receive direct university administration and funding, creating stronger institutional control compared to affiliated campuses that operate with greater autonomy, meaning TU's direct administrative control extends across 4.3% of national campuses while other universities collectively control only 6.9% (calculated from University Grants Commission, 2024 data).

Graduate output concentration further demonstrates TU's systemic dominance, with 74,149 graduates in 2023/24 representing approximately 76% of national graduate output of 97,564 total graduates (University Grants Commission, 2024). This graduate concentration has profound implications for Nepal's workforce development, as nearly four out of five higher education graduates receive TU credentials, creating credential homogeneity that may limit disciplinary diversity and specialized skill development. Comparative analysis shows Pokhara University contributed 7,651 graduates (7.84%) and Purbanchal University contributed 7,856 graduates (8.05%), while Kathmandu University contributed 3,077 graduates (3.15%), meaning TU's graduate output is 9.4 times larger than Purbanchal University and 24.1 times larger than Kathmandu University (University Grants Commission, 2024). The concentration persists across educational levels, with TU operating 1,030 Bachelor's campuses and 296 Master's campuses compared to national totals of 1,325 Bachelor's campuses and 426 Master's campuses, meaning TU controls 77.7% of Bachelor's programs and 69.5% of Master's programs nationally (University Grants Commission, 2024).

Faculty-Level Concentration and Disciplinary Imbalance

Management faculty enrollment demonstrates extreme concentration patterns that intersect with TU's institutional dominance. Management enrolled 282,836 students nationally, representing 44.68% of total higher education enrollment, with female students outnumbering males significantly (162,733 females vs. 120,103 males) (University Grants Commission, 2024). TU's Management faculty operates 766 campuses, meaning TU controls approximately 75% of national Management program infrastructure, while Purbanchal University operates 52 Management campuses (5.1%) and Pokhara University operates 48 Management campuses (4.7%) (University Grants Commission, 2024). This faculty concentration creates disciplinary homogeneity where nearly half of all higher education students pursue Management credentials, potentially creating labor market imbalances with oversupply in business administration and undersupply in technical, agricultural, and scientific disciplines critical for national development.

Education faculty enrollment shows similar concentration patterns with 139,417 students nationally (22.02% of total enrollment) and strong female majority (100,230 females vs. 39,187 males) (University Grants Commission, 2024). TU operates 532 Education campuses out of national educational infrastructure, representing 71.4% of Education program

distribution, while Purbanchal University operates 26 Education campuses (3.5%) and Far-Western University operates 16 Education campuses (2.2%) (University Grants Commission, 2024). The combination of Management and Education faculties accounts for 422,253 students (66.7% of total enrollment), meaning two-thirds of all higher education students pursue credentials in these two disciplines, while Science and Technology enrolls only 43,886 students (6.93%), Engineering enrolls 33,474 students (5.29%), and Agriculture-focused AFU enrolls only 4,066 students (0.64%) (University Grants Commission, 2024). This disciplinary imbalance indicates systematic underinvestment in technical and scientific capacities essential for economic modernization and technological advancement.

Technical field enrollment patterns reveal gender disparities that intersect with institutional concentration. Science and Technology has 43,886 students (6.93%) with male dominance (26,698 males vs. 17,188 females), Engineering has 33,474 students (5.29%) with significant male majority (25,306 males vs. 8,168 females), while Medicine enrolls 31,288 students (4.94%) with female majority (18,608 females vs. 12,680 males) (University Grants Commission, 2024). TU's dominance in technical fields is less pronounced than in Management and Education, but still substantial, with TU operating 109 S&T campuses, 16 Engineering campuses, and 20 Medicine campuses compared to Purbanchal University's 30 S&T campuses, 17 Engineering campuses, and 37 Medicine campuses (University Grants Commission, 2024). This suggests that while TU dominates soft-discipline faculties, technical field distribution is more dispersed, though absolute enrollment numbers remain critically low relative to national development needs.

Geographic and Provincial Disparities

Bagmati Province exhibits extreme geographic concentration that reinforces TU's institutional dominance. Bagmati hosts 624 campuses out of 1,432 national campuses, representing 43.58% of total institutional infrastructure (University Grants Commission, 2024). Student enrollment in Bagmati reaches 278,811 students, meaning 44.2% of all higher education students are concentrated in one province out of seven (University Grants Commission, 2024). TU operates 484 campuses in Bagmati Province alone, meaning 43.4% of TU's national campus infrastructure is concentrated in one province, while TU operates 159 campuses in Koshi Province, 161 campuses in Lumbini Province, 99 campuses in Gandaki Province, 98 campuses in Madhesh Province, 71 campuses in Sudurpashchim Province, and 41 campuses in Karnali Province (University Grants Commission, 2024). This geographic concentration creates accessibility barriers for students in peripheral provinces, as 56.4% of TU's campuses are located outside Bagmati but Bagmati still hosts the largest single concentration.

Ecological belt distribution reveals pronounced topographic disparities with Hill region accounting for 351,181 students (55.47% of total enrollment), Tarai region enrolling 265,651 students (41.96%), and Mountain region having smallest enrollment with only 16,221 students (2.56%) (University Grants Commission, 2024). Campus distribution by ecological belt shows 58.94% (844 campuses) located in Hill, 36.10% (517 campuses) in Tarai, and 4.96% (71 campuses) in Mountain (University Grants Commission, 2024). The Mountain region's 2.56% student share despite representing significant territorial area indicates severe access inequality, as Mountain provinces (Karnali and parts of Sudurpashchim) have only 58 and 94 campuses respectively compared to Bagmati's 624 campuses (University Grants Commission, 2024). This 10.8-fold campus disparity between Bagmati and Karnali creates structural barriers to higher education access for Mountain region populations.

Provincial university distribution demonstrates limited decentralization success despite federal restructuring. Provincial universities like Madesh Agriculture University (141 students, 0.02%), Lumbini Technical University (35 students, 0.01%), and Gandaki University (474 students, 0.07%) have negligible enrollment shares compared to TU's 77.61% (University Grants Commission, 2024). Even relatively newer provincial universities like Mid-West University (11,171 students, 1.76%) and Far-Western University (19,356 students, 3.06%) play modest roles in national enrollment (University Grants Commission, 2024). This indicates that federal restructuring has not meaningfully reduced TU's dominance, as provincial universities collectively enroll only approximately 6.6% of total students while TU enrolls 77.61%, meaning the pre-federal centralization pattern persists despite institutional proliferation.

Gender Parity and Enrollment Transformation

Female enrollment demonstrates significant transformation with 358,140 female students (56.57% of total) compared to 274,913 male students (43.4%), resulting in Gender Parity Index of 1.3 indicating that for every male enrolled, there are 1.3 females (University Grants Commission, 2024). This GPI exceeds Nepal's historical average of 0.69 from 1983 to 2023 and represents the maximum value of 1.2 recorded in 2023, indicating accelerating gender parity improvement (Global Economy, 2023). TU's female enrollment reaches 58.4% of its 491,299 students, aligning with national patterns and demonstrating that TU's dominance does not constrain female access (University Grants Commission, 2024). Girls' representation is highest at bachelor's level with 57.61% of students being women, indicating strong gender parity at undergraduate stage, while master's level proportion drops to 48.71% (University Grants Commission, 2024).

Faculty-level gender patterns show strong female participation in Education (71.89% girls), Medicine (59.47% girls), Management (57.54% girls), and Humanities and Social Sciences (53.68% girls), while faculties like Engineering (24.4% girls), Science and Technology (39.17% girls), and Sanskrit (14.50% girls) exhibit significantly lower female enrollment (University Grants Commission, 2024). This gender-faculty intersection indicates that while overall gender parity has improved, disciplinary segregation persists with females concentrated in soft-discipline fields that align with TU's dominant faculties. Gross Enrollment Ratio by gender shows female GER at 24.6% compared to male GER at 17.8% among population aged 18-22, highlighting greater proportion of females accessing higher education relative to their population (University Grants Commission, 2024). This GER gender gap of 6.8 percentage points represents substantial progress toward gender equity in tertiary access.

Medical academies demonstrate exceptional female representation with Pokhara Academy of Health Sciences at 75.0% girls, Patan Academy of Health Sciences at 74.8% girls, and National Academy of Medical Sciences at 74.3% girls (University Grants Commission, 2024). Far-Western University also shows notable proportion with 66.3% girls' students (University Grants Commission, 2024). These institutions' high female representation contrasts with TU's overall 58.4%, suggesting that specialized health academies may serve as alternative pathways for female higher education access, though their absolute enrollment remains small (BPKIHS: 1,459 students, PAHS: 250 students, NAMS: 459 students) (University Grants Commission, 2024).

Public Financing Concentration and Resource Allocation

Public financing allocation reveals resource concentration patterns that reinforce TU's institutional advantage. Government public financing allocated to Nepal's universities steadily increased from NPR 9,300 million in 2017/18 to NPR 17,457 million in 2023/24,

reflecting growing investment in higher education infrastructure (University Grants Commission, 2024). Tribhuvan University consistently received highest funding, climbing from NPR 6,730 million in 2017/18 to NPR 12,265 million in 2023/24 (University Grants Commission, 2024). This means TU received 70.2% of total public financing in 2023/24 (12,265/17,457), compared to its 77.61% enrollment share, indicating financing concentration slightly less extreme than enrollment concentration but still indicating overwhelming resource advantage (calculated from University Grants Commission, 2024).

The financing-enrollment ratio comparison reveals TU receives 70.2% of financing for 77.61% of enrollment, meaning TU receives approximately 0.90 units of financing per enrollment unit, while other universities collectively receive 29.8% of financing for 22.39% of enrollment, meaning approximately 1.33 units of financing per enrollment unit (calculated from University Grants Commission, 2024). This counterintuitive finding suggests that while TU receives majority financing, per-student resource allocation is actually higher for non-TU institutions, though absolute resource advantage remains with TU due to scale. However, this per-student calculation does not account for TU's constituent campus obligations, infrastructure maintenance costs, and historical legacy responsibilities that non-TU institutions do not face, which may justify higher absolute financing despite lower per-student allocation.

Financing trends from 2017/18 to 2023/24 show consistent growth across all universities, but TU's absolute increase of NPR 5,535 million (82.2% growth) exceeds aggregate growth of other universities, indicating that decentralization of financing has not occurred despite institutional proliferation (University Grants Commission, 2024). This financing concentration perpetuates TU's institutional advantage in faculty recruitment, infrastructure development, research capacity, and quality assurance mechanisms, creating a self-reinforcing cycle where TU's resource advantage enables continued enrollment dominance.

Systemic Vulnerabilities and Policy Implications

The empirical evidence of TU's 77.61% enrollment concentration, 77.86% campus concentration, 76% graduate output concentration, and 70.2% financing concentration creates multiple systemic vulnerabilities that threaten Nepal's higher education sustainability. First, quality assurance becomes challenging when one institution serves nearly 80% of students, as internal quality mechanisms become overwhelmed and external regulatory capacity cannot effectively monitor 1,115 campuses (University Grants Commission, 2024). TU's pass rate of 30.1% is substantially lower than Kathmandu University's 90%, Purbanchal University's 45%, Pokhara University's 45%, and medical academies achieving 92-100% pass rates (University Grants Commission, 2024), suggesting that TU's scale may compromise academic outcomes despite resource advantages.

Second, curricular innovation becomes limited as TU's programs and pedagogical approaches dominate the system, reducing competitive pressure for pedagogical experimentation. With TU controlling 77.7% of Bachelor's programs and 69.5% of Master's programs, curriculum standardization across TU-affiliated campuses creates homogeneity that constrains disciplinary diversity and innovative program development (University Grants Commission, 2024). The concentration of 66.7% of students in Management and Education faculties further limits disciplinary diversification essential for economic modernization (University Grants Commission, 2024).

Third, access inequity persists for non-Hill and non-Bagmati populations, as Mountain region's 2.56% student share and Karnali Province's 4.05% campus share indicate severe

geographic barriers (University Grants Commission, 2024). Provincial universities' negligible enrollment shares (MAU: 0.02%, LTU: 0.01%, GU: 0.07%) demonstrate that federal restructuring has not meaningfully reduced TU's dominance or improved peripheral access (University Grants Commission, 2024).

Fourth, research capacity concentration limits national research diversity, as TU's 74,149 graduates and 8,122 teachers produce disproportionate research output while other universities struggle with limited faculty (e.g., Pokhara University: 195 teachers, Purbanchal University: 108 teachers) (University Grants Commission, 2024). TU's student-teacher ratio of 21:1 is moderate compared to Far-Western University's 47:1 and Nepal Open University's 102:1, but medical academies achieve exceptional 1:1 ratios (University Grants Commission, 2024), indicating that specialized institutions can achieve superior quality despite TU's scale advantages.

Comparative Context and Theoretical Interpretation

Nepal's TU concentration exceeds typical patterns in comparative higher education systems. Single-institution enrollment shares above 50% are considered indicative of extreme centralization in developing contexts (Asian Development Bank, 2014), and TU's 77.61% represents particularly severe concentration. Historical analysis shows this concentration reflects TU's establishment in 1959 as Nepal's first university, creating institutional legacy advantages in infrastructure, faculty, and accreditation that newer universities cannot rapidly overcome (Tribhuvan University, 2025). The persistence of 77.61% concentration despite proliferation from one university to 24 universities over 65 years indicates that institutional proliferation alone does not reduce centralization without proactive policy interventions.

Theoretical frameworks for higher education decentralization suggest that formula-based funding, regional university strengthening, and faculty-level balance mechanisms are essential for reducing concentration (Asian Development Bank, 2014; World Bank, 2024). Nepal's experience demonstrates that without these interventions, institutional proliferation creates nominal diversification without substantive decentralization, as provincial universities remain financially and academically constrained. The financing-enrollment ratio analysis revealing 0.90 per-student financing for TU versus 1.33 for non-TU institutions suggests that absolute financing advantage matters more than per-student allocation, as TU's NPR 12,265 million enables infrastructure, faculty, and research capacity that NPR 5,192 million aggregate for other universities cannot match (calculated from University Grants Commission, 2024).

Gender parity improvements (GPI 1.3, female GER 24.6% vs. male GER 17.8%) align with global trends showing female tertiary enrollment exceeding male enrollment in many developing contexts, but disciplinary segregation (Engineering: 24.4% girls, S&T: 39.17% girls) indicates that parity improvements have not extended to technical fields essential for economic development (University Grants Commission, 2024; Global Economy, 2023). This intersection of institutional concentration with disciplinary and gender patterns suggests that TU's dominance may reinforce traditional faculty preferences while constraining expansion into technical disciplines.

Policy Recommendations and Future Directions

Based on empirical evidence of TU's structural dominance, three policy interventions are essential for sustainable higher education reform. First, formula-based funding mechanisms should allocate resources based on enrollment, performance, and regional need rather than historical patterns, reducing TU's absolute

financing advantage while ensuring adequate resources for emerging universities. Second, regional university strengthening requires targeted infrastructure investment, faculty recruitment support, and program development funding for provincial universities to enable them to compete with TU for enrollment and quality. Third, faculty-level balance mechanisms should incentivize technical, agricultural, and scientific program development through weighted funding allocations, accreditation priority, and faculty development support to address the 66.7% concentration in Management and Education faculties.

Monitoring frameworks should track enrollment concentration, graduate output distribution, financing allocation, and geographic distribution annually using EMIS data to assess whether decentralization interventions reduce TU's dominance over time. The 2023/24 baseline of 77.61% enrollment concentration, 77.86% campus concentration, and 76% graduate concentration provides reference points for measuring reform progress. Future research should incorporate longitudinal analysis examining concentration trends from 2017/18 to 2023/24, qualitative investigation of TU-affiliated campus experiences with quality assurance and curriculum standardization, and comparative analysis with other countries experiencing higher education decentralization to identify transferable policy interventions.

Conclusion

The empirical findings of this study show that structural dominance of Tribhuvan University in the higher education system of Nepal is a major hindrance in sustainable educational development; its enrollment concentration is 77.61%, campus concentration is 77.86%, graduate output concentration is 76%, and financing concentration is 70.2% which creates systemic vulnerabilities and weakens the quality, equity, and innovation in the higher education system of Nepal. In spite of the spread of the university from its initial campus to 24 universities in 65 years, the dominance of the university has not been diminished due to the lack of proactive policy effort in institutional centralization such as formula-based funding, strengthening of the regional universities, and balance mechanisms at the faculty level. The analysis shows that the enrollment percentage of 77.61% is higher than the usual criterion for institutional dominance in comparative systems of higher education, and that the prevalence of 77.7% (Master's 69.5%) of Bachelor's programs and Master's programs under the control of TU makes curricula homogenous, which limits the diversification of disciplines that is crucial for the economic modernization of the region. Structural imbalances are further aggravated by the geographic disparity with 43.58% of campuses in Bagmati Province and 44.2% of the students, while the Mountain region has only 2.56% of students, despite its large territorial area, representing the major imbalance in access for peripheral groups.

These structural imbalances need to be corrected by diversifying institutional capacity, by decentralising provinces and by allocating resources equitably, in order to reach sustainable higher education reform, with male GER at 17.8% while female GER is 24.6%, showing that improvements in gender parity have not been seen in technical fields that are needed for development. Policy interventions recommended are formula-based funding allocations, intensity of allocation, and regional resource allocation instead of historical trends, supporting provincial universities with infrastructure investments and faculty recruitment to compete with TU, and incentivizing the development of technical programmes, agricultural programmes and scientific programmes to counter the 66.7% concentration in faculties of Management and Education. Monitoring frameworks being developed on an annual basis for enrollment concentration, graduate output distribution, financing allocation, and geographic distribution will allow for the measurement of the impact of decentralization interventions to reduce TU's

dominance over time; the baseline from 2023/24 will allow the measurement of progress towards higher education system sustainability, which will involve both scaling up and scaling up alongside the scaling up of quality, equity, and innovation.

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