State, Society, and Development: PMPD Perspectives
Vol. 3, 2025, 67–87
Kathmandu, Nepal
https://doi.org/10.3126/ssd.v3i01.81304

Rethinking Higher Education in Nepal Through the Perspective of PMPD

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ARTICLE INFO

Article history

Received: 20 Feb 2025
Accepted: 28 April 2025

Keywords

Higher education
Human capital
Youth migration
Educational investment
Employability

ABSTRACT

This paper explores the critical need for transformative reforms within Nepal's higher education system to effectively address challenges related to quality, alignment with human capital development, innovation, and employability. As the country undergoes a demographic transition and aspirations for higher education rise, the current system is constrained by an outdated curriculum, inadequate infrastructure, and a lack of meaningful collaboration between academic institutions and industry. These issues contribute to brain drain, as many Nepalese youth seek educational and professional opportunities abroad, highlighting the urgent need for competitive local alternatives. To identify the various factors influencing transformative reform in Nepal's higher education sector, this study employs a mixed-method approach that foregrounds the narratives of students in higher education, supported by quantitative data. The participants in the study are students from colleges and universities in Kathmandu. The paper argues for a paradigm shift toward a hybrid educational model that balances intrinsic human development with the pragmatic demands of labor market readiness. Recommended strategies for reform include the modernization of curricula, the integration of emerging technologies such as information technology and artificial intelligence, and the development of strong partnerships between academia and industry. By addressing these multifaceted challenges through collaborative efforts involving diverse stakeholders and targeted policy interventions, Nepal can work toward building an inclusive, innovation-driven higher education system that fosters human capital development, reduces brain drain, and contributes to sustainable economic growth.

Introduction

Nepal's history of higher education is closely tied to the nation's broader educational development, which has evolved over centuries. Initially, education in Nepal was primarily based on the Gurukul system, which remained prevalent until the late 19th century. Today, education is recognized as a fundamental right. To deliver modern, high-quality education, general, vocational, and specialized education systems must be reorganized (Bhandari, 1993).

The establishment of Tri-Chandra College in 1918 marked the first organized effort toward higher education in the country. In 1959, Tribhuvan University (TU), Nepal's first university, was founded, laying the foundation for a formal higher

education system offering undergraduate and graduate degrees in diverse fields, including the humanities, science, management, and engineering (Upadhyay, 2018). Currently, Nepal's higher education system comprises 11 national universities (UGC, 2024), several provincial universities, four health academies, and 1,432 affiliated and constituent colleges. Despite this institutional expansion, access to quality higher education remains a significant challenge—particularly in light of the country's ongoing demographic transition (Neupane, 2019). The gross enrollment ratio in higher education was 14.42% in 2018/19, reflecting limited access among the eligible population.

Quality is another pressing concern. According to a report by the University Grants Commission (UGC, 2018), Tribhuvan University has an average graduation rate of only 26.1%, highlighting persistent challenges in student retention and academic achievement. Higher education plays a vital role in fostering human capital, promoting innovation, and improving employability. However, there is a pressing need for reform to address existing gaps in workforce readiness and human capital development. As Nepal faces a demographic shift and a growing demand for quality education, its current educational framework is ill-equipped to respond due to systemic inadequacies. Key issues include outdated curricula, insufficient practical training, inadequate infrastructure, and limited integration of modern technology. These shortcomings hinder Nepal's ability to capitalize on its demographic dividend, particularly as youth increasingly seek opportunities that support economic advancement and global competitiveness (Upadhyay, 2018; Bhandari, 2021).

This situation is exacerbated by a significant brain drain. Approximately 808,415 young people have left the country for employment abroad, and over 108,542 Nepali students have chosen to study overseas (Department of Immigration, Nepal, 2024). Youth migration has emerged as a critical challenge linked to weaknesses in Nepal's higher education system. Data from the Ministry of Education, Science, and Technology (MOEST, 2020) show that over 60,000 students applied for permission to study abroad in the 2019–2020 academic year. In the first six months of the current fiscal year alone, more than 51,000 students received a No Objection Certificate (NOC). Between July 17, 2023, and January 14, 2024, a total of 51,637 NOCs were issued (Ministry of Education, 2024). Of these, 12,075 were for study in Canada, 9,787 for Australia, 8,567 for Japan, 6,687 for the UK, 5,318 for the US, 2,372 for South Korea, and 1,312 for India. Students have received NOCs to study in 58 different countries, with an average of 500 applications submitted online each day (Onlinekhabar, 2025).

Youth are influenced by a range of aspirational factors, particularly the pursuit of quality education and improved career prospects. Numerous studies indicate that individuals often view migration as a pathway to personal and socioeconomic advancement (Carling & Schewel, 2018; King & Raghuram, 2013). This trend is largely driven by the perceived value of international qualifications and experiences (Sijapati & Limbu, 2012). Economic considerations also play a crucial role in shaping migration decisions among youth. Financial aid, scholarships, and favorable exchange rates are key enablers of youth migration (Choudaha, 2017). The potential for higher earnings after graduation serves as a significant motivation, particularly for individuals from low-income countries such as Nepal (OECD, 2019). Moreover, the higher education sector grapples with persistent problems such as outdated curricula and inadequate facilities, further motivating students to migrate to countries that offer more contemporary and dynamic educational environments (Adhikari, 2019). Families commonly encourage their children to pursue higher education overseas, perceiving it as an investment that enhances the family's socio-economic status (Sijapati & Limbu 2012).

The incorporation of Information and Communication Technology (ICT) in education has emerged as a transformative force, fundamentally reshaping teaching and learning processes to meet 21st-century needs. ICT supports the shift from traditional teaching methods to student-centered learning environments that foster critical thinking, collaboration, and problem-solving skills (Oliver, 2002). However, research by Dahal et al. (2020) highlights that limited digital resources and infrastructure hinder the adoption of digital or blended learning models. This often leads students to rely on outdated, conventional methods of instruction, reducing engagement and interactivity. The lack of technological integration reinforces an outdated educational experience, prompting many students to pursue studies abroad—especially in disciplines that demand strong digital competencies (Dahal et al., 2020).

In Nepal, however, the higher education system has struggled to produce graduates equipped with the competencies needed for innovation and economic development. Brain drain remains a particularly serious concern—not only leading to the loss of educated professionals but also weakening the development of local institutions. Carnoy (2004) emphasizes that investment in domestic education systems, along with strategies to retain talent, is essential to mitigating brain drain and advancing national human capital.

Higher education is widely recognized as a critical driver of economic and social development within nations. Upadhyay (2018) argues that higher education represents a significant investment that not only facilitates the preservation and enhancement of cultural and historical heritage but also cultivates a skilled workforce adept at maneuvering the complexities of the job market. The research conducted by Hansuhek and Woessman (2008) shows that countries investing in skilled-based education experience higher economic growth and lower unemployment rates. Nevertheless, in many developing countries, investments in education often fail to align with labor market demands, resulting in a skills mismatch. Psacharopoulos (1985) emphasizes the importance of vocational and technical education in developing countries, as it aligns closely with the skills demands of emerging industries.

Nepal's human capital crisis is characterized by brain drain, underinvestment in learning and development (L & D), and weak collaboration between educational institutions and the private sector. A growing number of young people are pursuing jobs abroad, driven by limited domestic employment opportunities and the lack of recognition for various professions (Poudel, 2024). Historically, higher education has been regarded as a fundamental mechanism for building human capital. Schultz (1960) underscores the importance of investing in educational opportunities to enhance productivity and drive innovation.

Higher education institutions contribute to economic growth by equipping individuals with advanced knowledge and skills, improving their employability and entrepreneurial potential. Becker's (1964) analysis of human capital further highlights the role of higher education in fostering innovation and facilitating adaptation to technological advancements. Economic theories such as endogenous growth theory (Romer, 1990) emphasize the vital role of education, particularly higher education—as a driver of technological progress and economic expansion. In developing countries like Nepal, the relationship between higher education and economic growth remains central to discussions on education reform and national development.

In this context, PMPD presents a compelling vision for reimagining higher education. It advocates for a system that prioritizes equity, inclusivity, and relevance, ensuring that education functions as a tool for empowerment rather than exclusion. By integrating modern technologies such as artificial intelligence (AI) and virtual learning environments, and by aligning curricula with the demands of

the global economy (Dahal et al., 2020), Nepal can transform its higher education system into a catalyst for innovation and economic growth.

PMPD also emphasizes the importance of decentralizing education governance, fostering community participation, and addressing regional disparities to ensure that rural and marginalized populations are not left behind. Within this framework, the present paper critically analyzes Nepal's higher education system through the lens of PMPD, exploring its potential to address systemic challenges and contribute to the nation's socio-economic development. It examines issues such as outdated curricula, infrastructural deficits, and the consequences of youth migration while proposing innovative pathways for reform.

By aligning higher education with the principles of PMPD, this study envisions a system that not only fulfills the aspirations of Nepal's youth but also strengthens the nation's capacity to thrive in an increasingly competitive global landscape.

Methodology

Human capital theory views education as a financial investment expected to yield returns in the labor market (Becker, 1964, 1993). However, the value of education also aligns with the American liberal arts tradition, which emphasizes personal autonomy and decision-making. Bridges (1992) argues that education empowers individuals to be free and equips them with the capabilities to make life choices, driven by internal motivations that extend beyond mere economic success. This perspective is echoed by Bhandari (2021), who asserts that new technologies enhance productivity by creating an environment conducive to the development of the means of production. He also underscores the importance of continuously evaluating public support. Bhandari shares a vision of education aligned with the ideals of PMPD, viewing it as a transformative force that democratizes knowledge and fosters expertise to develop technologies suited to Nepal.

This discourse invites reflection on whether education should be seen solely as an investment or as an expenditure. Human capital theory posits that individuals invest in higher education to increase their earning potential and productivity. Research shows that each additional year of education can lead to approximately a 10% increase in individual earnings, demonstrating a positive correlation between educational attainment and national economic growth (Hanushek & Woessmann, 2020; Psacharopoulos & Patrinos, 2018). Furthermore, Haveman and Wolfe (1995) found that parents' educational levels are closely linked to their children's educational success, illustrating the intergenerational benefits of education. Thus, investing in education is fundamental to enhancing human capital and yields significant returns in both personal and societal development.

In this context, to examine higher education through the lens of PMPD and human capital theory, this study employs a mixed-method approach focused on human capital development, innovation, and employability. Data collection integrates both qualitative and quantitative methods. Primary data were gathered through interview guidelines and a questionnaire survey. It was purposefully selected 27 students—12 female and 15 male—from Bachelor's, Master's, MPhil, and PhD programs for key informant interviews (KIIs). Among them, 8 male and 8 female students were from undergraduate (Bachelor's) programs, while the rest were from graduate programs. Secondary data were obtained from government reports.

The research instruments were designed to gain insights into students' perceptions of their learning experiences, the role of technology in higher education, and the relevance of their studies to employability. The KIIs provided in-depth qualitative insights into how higher education institutions foster innovation and prepare students for the workforce. In line with ethical research standards, pseudonyms were used to ensure the anonymity and confidentiality of all participants in the qualitative findings.

The study population consists of individuals currently enrolled in Bachelor's, Master's, MPhil, and PhD programs in Nepal. Secondary data analysis was used to identify trends in migration and employment, alongside a review of the policy frameworks presented in government reports. The analytical framework synthesizes human capital theory with an innovation-oriented educational model to evaluate how higher education contributes to employability and drives economic development. For the quantitative data, 117 respondents were randomly selected. The table below presents an overview of the demographic characteristics of these survey participants, representing various educational levels and fields of study.

Table 1: Demographic profile of the survey participants (n) = 117

Variable		Participants	Percentage
Gender	Male	63	53.85%
	Female	54	46.15%
Education Level	Bachelor	51	43.59%
	Master	31	26.5%
	MPhil	16	13.68%
	PhD	13	11.11%
	Others	6	5.13%
Field of Study	Humanities & Social Science	19	16.2%%
	Business & Management	24	20.5%
	Community / Development IT/Computer	22	18.8 %
	Engineering	18	15.4%
	Medicine	9	7.7%
	Media studies	15	1.8%
	Science	8	6.8%
	Other	2	1.7%

Results and Discussion

Motivations for pursuing higher education in Nepal

The most commonly cited motivations were proximity to family (58.12%), affordability (52.14%), limited alternatives (26.5%), and personal interest (2.56%). These responses reflect a mix of instrumental (e.g., career advancement) and intrinsic (e.g., personal growth) motivations. The findings suggest that closeness to family and the presence of strong social and familial support are key drivers in the decision to pursue higher education in Nepal. Affordability emerged as the second most common factor, underscoring the influence of financial considerations. The limited availability of alternative options also shaped students' decisions, highlighting a constrained decision-making environment. Interest was the least frequently mentioned reason, indicating that intrinsic motivation played a less prominent role for most participants.

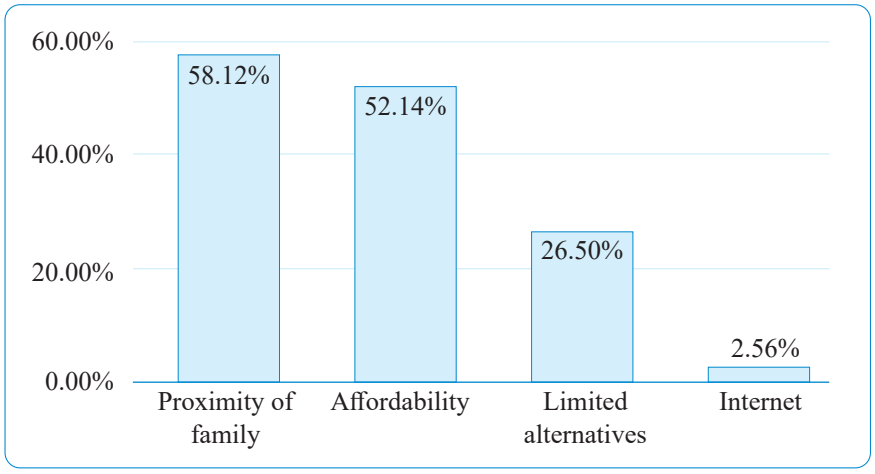

Figure 1: Motivation for pursuing higher education in Nepal

Note. "Total percentage may exceed 100% due to 'Select All That Apply' or 'Choice Grid' questions"

After conducting survey interviews, respondents were asked why they chose to pursue higher education in Nepal.

> Sandesh, a 25-year-old student pursuing a Master's in Development Studies, said, "I studied in Nepal because I had limited choices. While I aspire to a better education abroad, family expectations and financial constraints limit my choices."
>
> Gita, a first-year university student studying Social Science, shared, "Higher education in Nepal is often chosen out of necessity rather than preference. It was only because of my family bond that I decided to pursue higher education here."

The study reveals that many participants aspire to study abroad, but family expectations and financial limitations often prevent them from doing so. These findings suggest that the decision to pursue higher education in Nepal is frequently driven by necessity rather than genuine preference. Students tend to choose local options not because of satisfaction or strong interest, but due to a lack of viable alternatives, financial constraints, or personal commitments.

Perception of higher education quality in Nepal

The chart illustrates varied perceptions of the quality of higher education in Nepal across different academic fields. In Business and Management, there is a notable level of dissatisfaction, with 57% of students rating the quality as "Poor" and only 5% rating it as "Excellent" or "Good." In contrast, the Development/Community sector shows a more balanced assessment: 41% of respondents rated it as "Average," while 54% still labeled it "Poor."

Engineering and Humanities and Social Sciences reflect mixed perceptions, with the majority rating them "Average," though a significant number also rated them "Poor." Information Technology/ Computer Science is viewed particularly negatively, with 72% of students rating it "Poor" and only 14% considering it "Good" or "Average," highlighting serious concerns about quality.

Media Studies received the most negative evaluation, with 78% of students rating it "Poor," indicating widespread dissatisfaction. Medicine shows a similar trend, with 78% rating it "Poor" and only 11% rating it "Average" or "Good." In contrast, Science is uniformly rated "Average," suggesting consistency in perception, though not necessarily strong satisfaction.

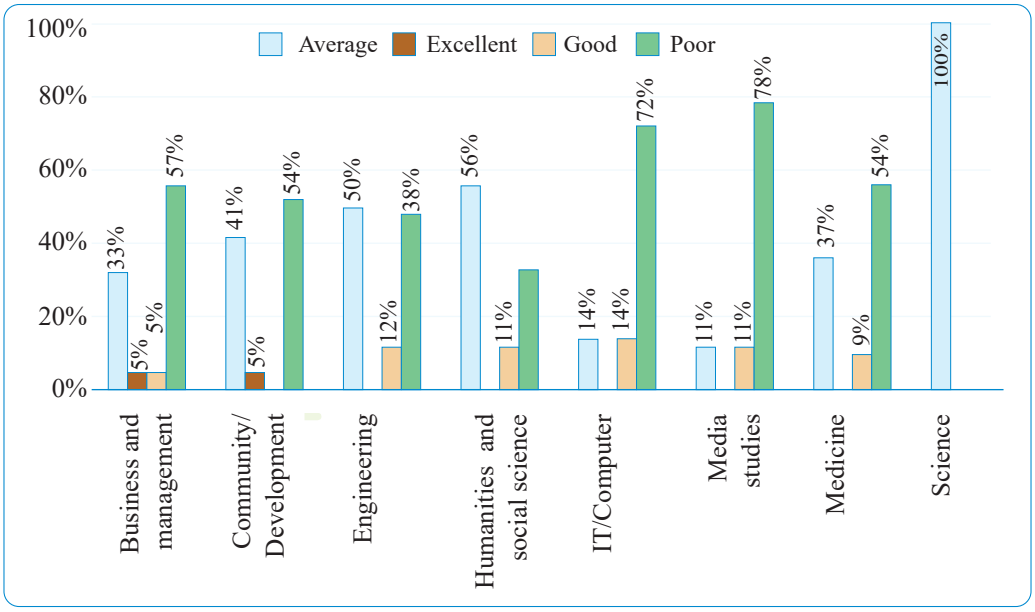

Figure 2: Perceptions of higher education quality in Nepal among students from diverse fields

After the survey, interviews were conducted in which respondents were asked to share their views on the quality of higher education in Nepal. Rama, a fourth-year student studying Community Development, said, "While the foundational concepts are taught well, the practical skills needed for jobs are almost absent." Similarly, Risabh, a third-year Master's student in Engineering, stated, "How can we innovate when even basic engineering tools are not available in our universities? Our classrooms don't reflect modern industry needs."

Respondents pointed out that although foundational knowledge is generally well covered, practical skills essential for employability are largely lacking. This highlights a disconnect between academic instruction and its application in real-world contexts. In Nepal, university classrooms often lack essential resources—such as engineering tools—limiting students' opportunities for hands-on practice and innovation.

Alignment with human capital development

The accompanying diagram illustrates students' perceptions across various academic fields regarding the ability of Nepal's higher education system to prepare graduates for global job market competitiveness. Responses were categorized into four options: "Yes," "No," "Somewhat," and "Not Sure."

The data reveal a widespread lack of confidence in higher education institutions' capacity to prepare students for international standards. Most responses leaned toward "No" and "Somewhat," indicating that students generally view the system as inadequate in fostering global competitiveness.

In the Business and Management field, 47% of students rated the quality as "Poor," while only 5% considered it "Good" or "Excellent." The Community/Development sector received more mixed feedback, with 41% rating it as "Average" and 54% as "Poor." Engineering, along with Humanities and Social Sciences, received varied ratings; while most students rated these fields as "Average," a notable proportion expressed dissatisfaction.

The IT/Computer Science field reflected similar concerns, with 42.9% of respondents selecting

"Somewhat" and 33.8% choosing "No," emphasizing the lack of practical training and international exposure. Media Studies received the most negative evaluation, with 78% rating it "Poor," signaling widespread discontent. Notably, 100% of Science student respondents selected "Not Sure," possibly indicating uncertainty or a lack of clarity regarding the system's effectiveness in preparing students for global scientific careers. In summary, the overall trend suggests that Nepal's higher education system faces significant challenges in aligning with the needs of the global job market.

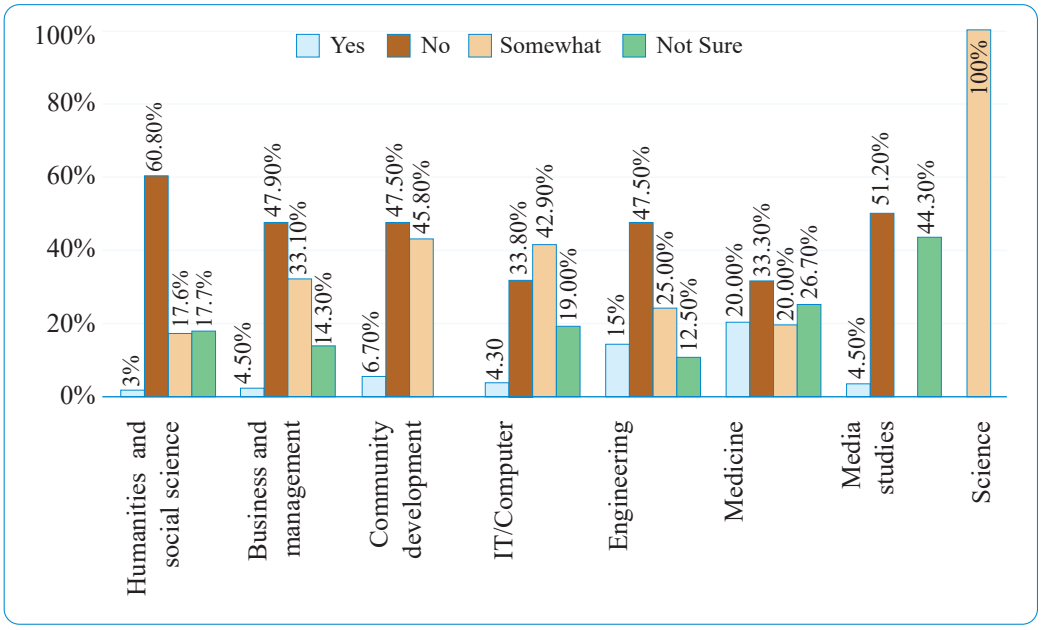

Figure 3: Perceptions of students from diverse fields on the Nepali higher education system's role in equipping graduates for global job market competitiveness

After the survey, interviews were conducted in which respondents were asked about their perceptions of whether higher education in Nepal equips them with the necessary skills for global market competitiveness and job readiness.

> Jiya, a graduate in the IT field, said, "I realized I lacked the practical skills needed for my job. Our education prepared us for exams, not for employment." Similarly, Bibek, a Master's student in Development Studies, remarked, "Internship opportunities and collaboration with industries are crucial. Without these, we are left unprepared for the workplace." Srijan, a fourth-year student pursuing a Bachelor's in Business Administration, noted, "Supporting student-led entrepreneurial projects could help us create jobs instead of just looking for them."

These remarks highlight the lack of hands-on experience that is essential for bridging the gap between theoretical knowledge and practical application. They also underscore concerns about the capacity of higher education to prepare students not only for employment but also to empower them as creators of job opportunities. By fostering student innovation and supporting entrepreneurial initiatives, higher education institutions could better unlock their students' potential.

Return on investment in higher education

The chart below provides insights into how students perceive the return on investment (ROI) for various academic fields. Responses were categorized into three groups: "Yes," "No," and "Not Sure."

In the Humanities and Social Sciences, opinions were divided: 60% of respondents selected "Not Sure," and 40% chose "No," indicating skepticism about the career value of these degrees. In the Business field, only 16.7% of students answered "Yes," while 58.3% selected "No," and 25% responded "Not Sure," reflecting significant doubts about career advantages.

The Community/Development field showed predominantly negative perceptions, with 53.3% responding "No" and 46.7% selecting "Not Sure." Similarly, in the IT/Computer field, 54.5% of participants answered "No," and 45.5% chose "Not Sure."

Strikingly, the fields of Engineering, Medicine, Media Studies, and Science all received a unanimous 100% response of "No." This extensive lack of confidence in ROI is particularly notable for fields like Medicine, which are traditionally seen as providing stable career prospects.

The complete absence of "Yes" responses across all fields—except Business and Management—reflects a deep disconnect between academic investment and perceived career benefits. It underscores how the current education system is failing to instill confidence in students regarding the economic and professional returns of their educational pursuits.

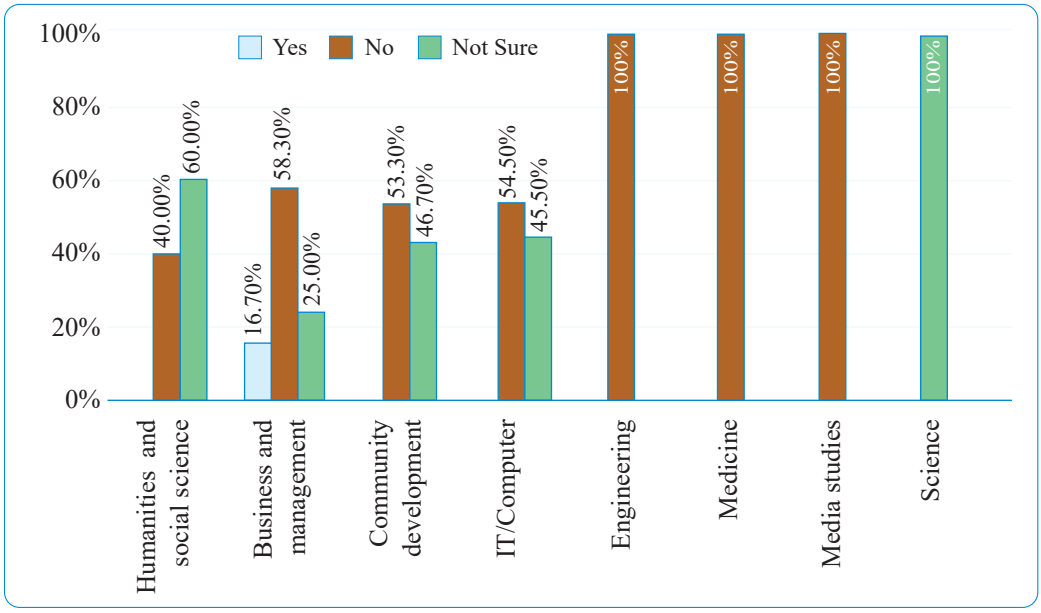

Figure 4: Student's perspective on career ROI from Nepali higher education

After the survey, interviews were conducted in which respondents were asked about their perspectives on the career return on investment (ROI) from Nepali higher education. Hari, a graduate with a Bachelor's degree in Medicine, stated, "Despite holding a degree, many of us face difficulties securing well-paying positions. Our investment in education yields limited returns." Similarly, Anisha, a second-year student studying for a Bachelor's in Management, said, "The tuition fees are exorbitant, yet the quality of education does not meet international standards. We find ourselves competing for low-wage employment."

These narratives highlight the need to view higher education not merely as a financial burden, but as a strategic investment in human capital—one that can produce both economic and social returns when effectively aligned with labor market demands.

Innovation and employability in education

Reforming the higher education curriculum

The chart titled "Student Opinions on Reforming Nepal's Higher Education Curriculum" presents the percentage of students across various academic disciplines who advocate for curriculum reform. Responses are categorized into "Yes," "No," and "Maybe."

Notably, there is unanimous agreement in key disciplines such as Humanities and Social Sciences, Business and Management, Engineering, Media Studies, and Science, where 100% of respondents selected "Yes." This consensus reflects widespread dissatisfaction with the current curriculum and underscores the urgent need for reform to improve its relevance and effectiveness.

In the field of Community Development, 86.96% of respondents support reform, while 12.04% are uncertain and 1% responded "No," suggesting that a small minority either find the current curriculum partially adequate or are unclear about the need for changes. Similarly, in IT/Computer Science, 90.48% support reform and 9.52% are uncertain—possibly due to relatively better integration of industry-relevant content, although significant gaps remain.

In Medicine, an overwhelming 98% of students favor curriculum reform, with only 2% expressing uncertainty. The broad-based support for curriculum reform across diverse disciplines points to systemic deficiencies in Nepal's higher education system and the need for comprehensive updates to better equip students for modern workforce demands.

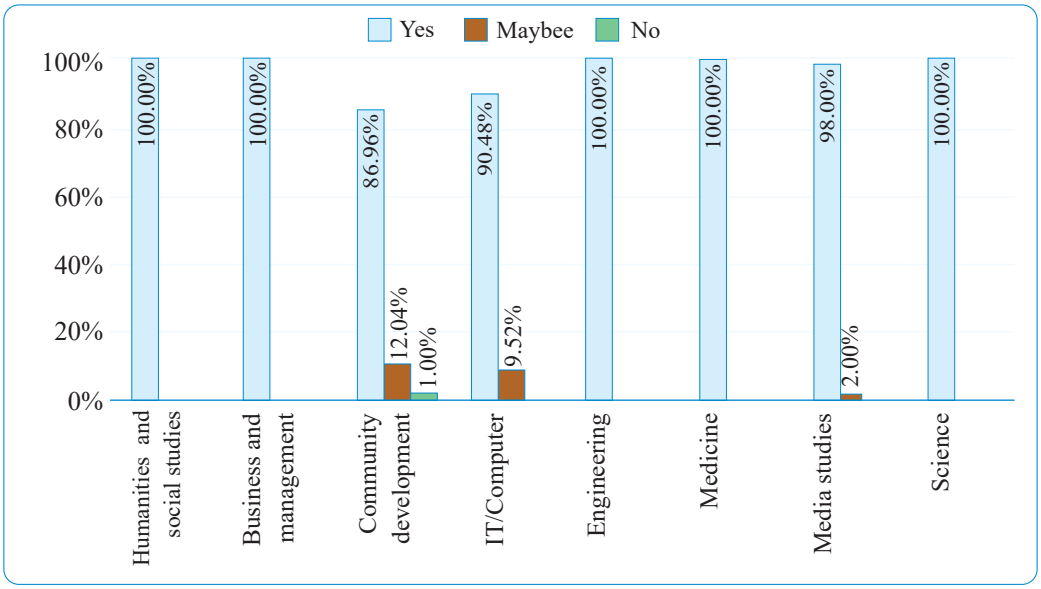

Figure 5: Student opinions on reforming Nepal's higher education curriculum

After the survey, interviews were conducted in which respondents were asked about their opinions on the changes needed to improve the quality of the higher education system.

Ankit, a Master's student in Sustainable Development, said, "The curriculum has been the same for years now, and it's becoming a serious issue. The world has changed drastically, but our education system hasn't kept up." Similarly, Arohi,

a Master's student in Computer Science, stated, "The curriculum here is too rigid and narrow. We aren't taught how to think critically. We seriously need to open up to a more diverse range of ideas and learn about global components beyond our borders."

These perspectives reflect that Nepal's higher education system has not evolved to meet the demands of a competitive global market. Students are calling for a more flexible and relevant curriculum—one that emphasizes practical skills, technological integration, critical thinking, and exposure to global perspectives. The rigidity of the current curriculum stifles intellectual growth and leaves students ill-prepared for the diverse realities of the modern world. Curriculum reform is essential to equip Nepali students for success in an interconnected and competitive global environment.

Preference for vocational education vs. traditional higher education

Figure 6 provides insight into students' perceptions of vocational education (such as CTEVT) as an alternative to traditional academic education. Responses are grouped into two categories: those in favor ("Yes") and those opposed ("No").In Humanities and Social Sciences, only 47.4% of students support vocational training. In contrast, 58.3% of students in Business and Management express support. The Community Development and IT/Computer fields show strong support, with 72.70% and 72.2%, respectively. In Engineering, 55.60% of students are in favor. In the Medical field, 40% support vocational education, while 46.7% oppose it. Media Studies shows the highest support, with 87.5% in favor. Meanwhile, in the Science field, 100% of respondents reject vocational options.

Overall, these findings reveal significant disparities in attitudes toward vocational training across different academic disciplines. They highlight a strong preference for practical, skill-based education in certain fields, while also emphasizing the perceived ongoing value of traditional academic pathways in others.

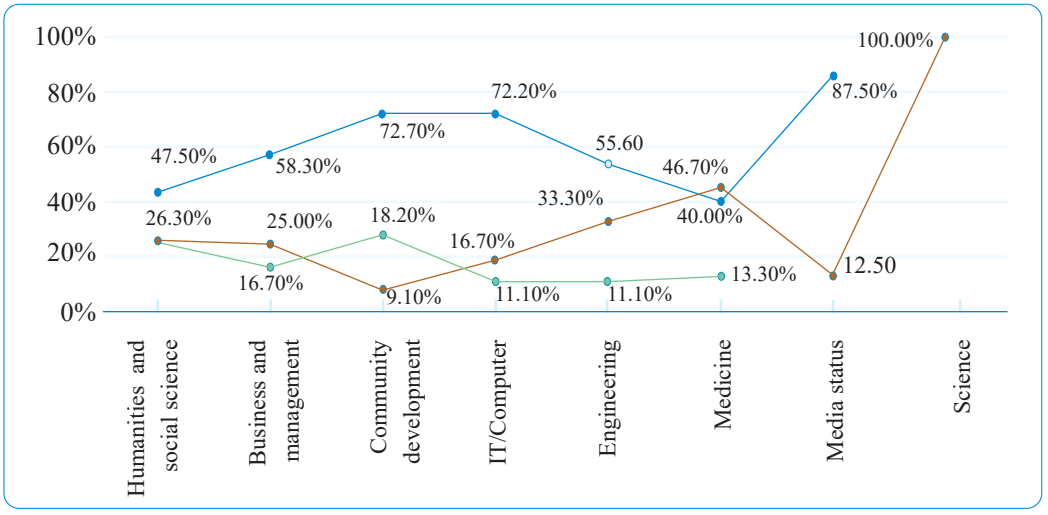

Figure 6: Preference for vocational education vs. traditional higher education in Nepal by field of study

After the survey, we interviewed students to reflect on and share their preferences between vocational and traditional education.

Sanjay, an IT graduate, stated, "After finishing my Bachelor's, I noticed that many of my friends who had pursued vocational

education were already employed, while I was still doing unpaid internships. I wish I had considered that option earlier." Similarly, Mira, a final-year medical student, said, "I prefer the traditional method of education, but it would be much better if the courses were designed to equip students with practical skills that lead to quicker job placements."

These narratives reflect a broader societal shift, where the relevance of conventional university degrees is increasingly being questioned. There is a growing emphasis on practical, skill-based learning over purely theoretical education. The rising acknowledgment of vocational education highlights changing economic demands that favor immediate job readiness and practical skill acquisition over traditional academic routes.

Innovative digital tools, technologies, and methods desired in higher education

The cross-tabulation analysis shows that Technology-Driven Learning (90%) and AI and Digital Technologies (55%) are the most preferred innovations among students aspiring to study abroad, indicating strong demand for tech-integrated education. Blended and Hybrid Learning (50%) also ranks high, reflecting a desire for flexible and digital educational experiences.

Collaborative and Interactive Learning (60%) is also highly valued, underlining the importance of soft skills such as engagement, critical thinking, and teamwork in higher education. Project-Based Learning (16%) is appreciated by both aspiring and non-aspiring students, with the small gap between the groups suggesting its wide relevance across contexts. Gamified Learning (20%) is the least prioritized, though it still holds potential. Overall, these findings suggest that educational institutions should prioritize AI-driven, technology-enhanced, project-based, and blended learning methods, while also promoting interactive and collaborative teaching approaches to better serve students—especially those considering education abroad.

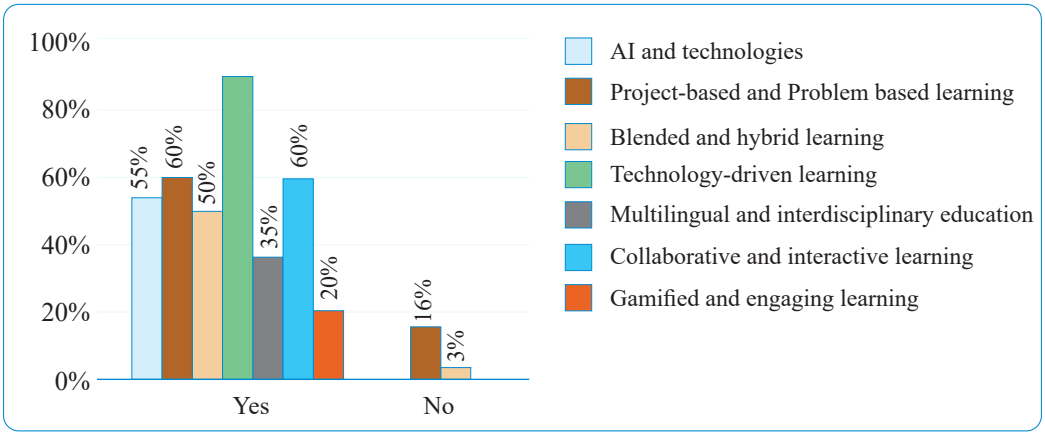

Table 7: Aspiration to study abroad and desired innovation in higher education

After the survey, interviews were conducted to inquire about the innovative technological advancements students would like to see in Nepal's higher education system. Many participants acknowledged that traditional approaches to learning were inadequate for enhancing their competitiveness in the rapidly evolving global economy. As a result, they advocated for the integration of digital tools such as artificial intelligence (AI), virtual reality (VR), and online learning platforms as essential components of modern education.

> Arav, a Master's student in IT, said, "Incorporating technologies like AI and VR could revolutionize how we learn and make us more employable." Similarly, Manusha, a third-year Bachelor of Media Studies student, said, "Online platforms and AI-integrated teaching could personalize learning and make it more efficient." Srija, a Master's in Business Administration student, stated, "Blended learning models that combine online platforms with classroom teaching would make education more flexible and engaging."

These emerging technologies have the potential to transform educational delivery, offering more interactive and immersive learning experiences. The use of AI and VR can allow students to engage with complex subjects through simulations and real-time problem-solving, making education more applicable and relevant to their future careers. Personalized learning, supported by AI, can tailor content and pacing to each student's strengths and weaknesses, significantly improving learning outcomes and focusing on student success.

Blended learning—which integrates digital tools with traditional face-to-face instruction—enables students to learn at their own pace while still benefiting from direct interaction with instructors. This pedagogical approach enhances student engagement through a mix of self-directed and collaborative learning, better preparing them for the dynamic demands of the workplace. However, it was acknowledged that access to such innovative resources is often limited to private institutions in urban areas, placing students in rural regions at a considerable disadvantage. To promote inclusivity, higher education institutions must ensure that technological innovations benefit all students equally, thereby enhancing employability across geographic and socioeconomic divides.

Human capital and youth migration trends

Aspiration to pursue higher education and employment abroad

The chart below illustrates the percentage of students from various academic fields in Nepal who aspire to pursue higher education or employment abroad. Responses are categorized as "Yes" or "No," revealing clear trends regarding international aspirations.

A substantial majority of students across most disciplines express a strong desire to study or work abroad. Fields such as IT/Engineering, Medicine, Media Studies, and Science show a 100% "Yes" response rate, reflecting a widespread belief that international opportunities offer superior avenues for personal, educational, and professional growth.

In the Humanities and Social Sciences, 76.5% of students expressed intentions to study or work abroad, while 23.5% responded "No." Similarly, 85.7% of students in Business and Management aim to explore opportunities overseas, with only 14.3% choosing to remain in Nepal. In the Community/ Development sector, 87.5% responded "Yes" and 12.5% "No," further reinforcing strong global aspirations.

These overwhelmingly high aspirations to study and work abroad underscore systemic challenges within Nepal's higher education and employment frameworks. This trend highlights pressing issues related to youth migration—often referred to as "brain drain"—where talented individuals seek opportunities abroad due to limitations and inefficiencies in the local system. It raises important concerns about the capacity of domestic institutions to retain and nurture the country's human capital.

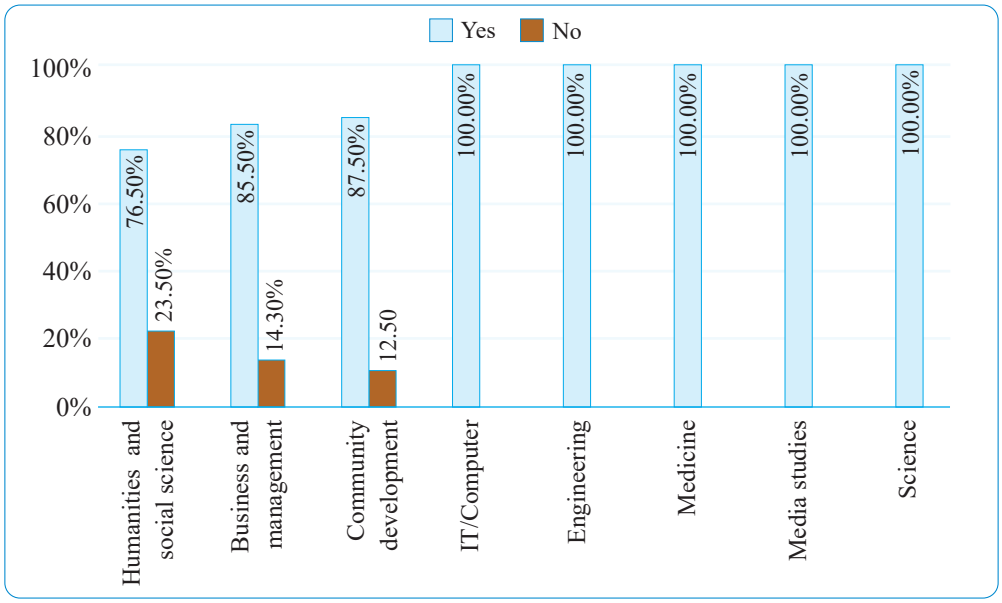

Figure 8: Aspiration to pursue higher education and employment abroad

After the survey, interviews were conducted in which respondents were asked about the various factors that inspired them to study abroad.

> Abhishek, a graduate of the Bachelor of Business Administration (BBA) program, stated, "Studying abroad opens the door to advanced technologies and career prospects that Nepal does not offer. Even the Nepali job market prioritizes foreign degrees over domestic ones." Sriya, a final-year Bachelor of Medicine student, said, "If our universities adopted global standards and provided better facilities, I would consider staying in Nepal and pursuing my Doctor of Medicine (MD) here."

A prominent concern that emerged during the interviews was the strong ambition among students to seek educational or employment opportunities abroad. This aspiration is primarily driven by the perception of better prospects, higher educational standards, and improved career opportunities in other countries. This phenomenon, commonly referred to as "brain drain," poses a significant challenge for Nepal's higher education system, as many young individuals aim to migrate in pursuit of more rewarding and fulfilling careers.

Many students see studying abroad as a way to gain skills and experience that significantly enhance their career prospects. This suggests that the desire to migrate is not solely a reflection of disloyalty or lack of commitment to Nepal but rather a response to systemic limitations in the domestic education and job markets.

Factors influencing the decision to study abroad

Figure 9 illustrates the various factors influencing students' decisions to study and work abroad, categorized as "Very Important," "Important," and "Neutral."

The factors of better job opportunities and higher earning potential stand out most prominently, with 94.02% and 84.62% of respondents respectively labeling them as "Very Important." This reflects students' belief that obtaining an international qualification leads to better salaries and reveals dissatisfaction with local earning prospects.

Better quality of education was rated "Very Important" by 75.21% of respondents, indicating

discontent with the standard of higher education in Nepal. Advanced technology and research facilities were also considered "Very Important" by 65.81%, demonstrating students' desire for access to modern infrastructure and cutting-edge tools often lacking in Nepal's educational institutions.

Cultural and personal aspirations were rated "Very Important" by only 28.21% of respondents, suggesting that while students value cultural experiences and personal growth, these are secondary to career and financial considerations. Similarly, family/peer pressure was labeled "Very Important" by 18.8% and "Important" by 28.21% of respondents. This indicates that while family and social influences are present, they tend to be supportive rather than central to the decision-making process.

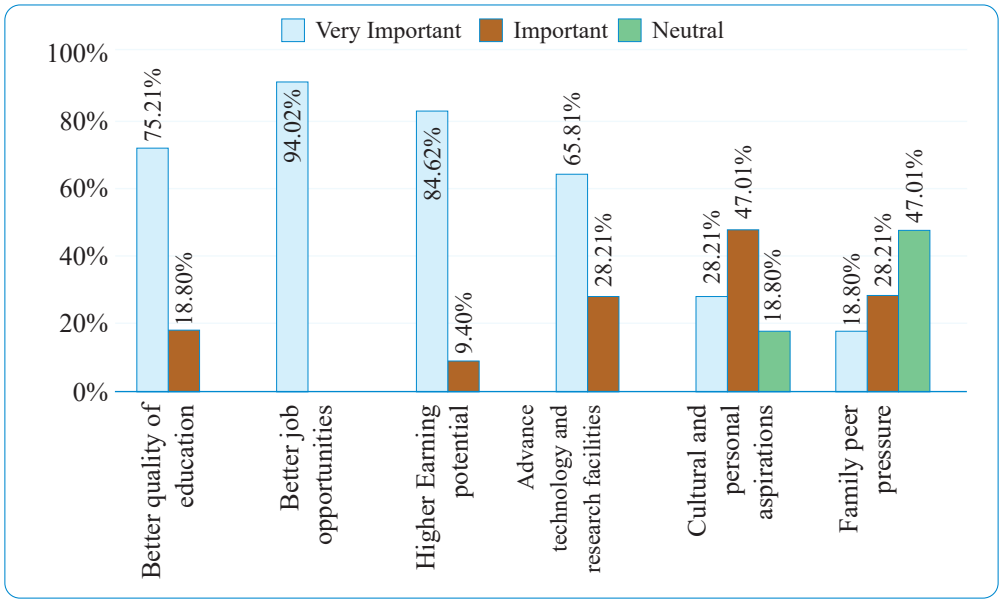

Figure 9: Factors influencing the decision to study abroad

After the survey interviews were conducted, respondents were asked about what influenced their decision to study abroad.

> Aayush, a third-year Engineering student, shared: "I want to pursue my further studies abroad because the system there prioritizes skills and innovation. Plus, studying abroad would provide me with valuable networking opportunities with professionals worldwide, which is vital for my future career."
>
> Ankita, an MPhil student in Educational Leadership, stated: "It's not solely about educational quality; it's also about the lifestyle and exposure it offers. Moreover, the potential to earn more after studying internationally is much higher."
>
> Ujwol, a graduate with a Bachelor's in Community Development, said: "I completed my Bachelor's and have now started working in an established organization here. My friend went abroad after his Bachelor's and is working in a phone store changing mobile covers, but he earns at least three times as much as my monthly salary."

The aspiration to study abroad is driven by a blend of professional, academic, and personal motivations. Some students are genuinely seeking a learning environment that emphasizes hands-

on experience and the practical application of theory to real-world challenges. Financial return on investment appears to be a significant factor in their decision-making process, as earning potential in foreign countries is considerably higher than in their home country. These motivations reflect a growing recognition that education in a global context offers greater opportunities for shaping successful, capable, and well-rounded individuals.

Challenges in Higher Education in Nepal

The chart below highlights key challenges faced by students in Nepal's higher education system. The foremost challenge identified is the lack of job market readiness (72.6%), indicating a significant disconnect between academic programs and labor market demands. The presence of an outdated curriculum (59.8%) and limited practical exposure (55.6%) further underscores this gap, pointing to the need for curriculum reform and the integration of experiential learning opportunities.

Other issues include bureaucratic hurdles (42.7%), a lack of qualified faculty (3.5%), and inadequate infrastructure (35.9%), revealing systemic weaknesses that affect both the delivery and quality of education. Additionally, the lack of digital integration (59.8%) emerges as a major concern, especially in the context of a global shift toward technology-driven education. Concerns related to time constraints (25.6%) and other minor issues (1.7%) are less prominent compared to the broader systemic challenges. Overall, the chart reveals a complex interplay of structural, educational, and administrative issues within Nepal's higher education system.

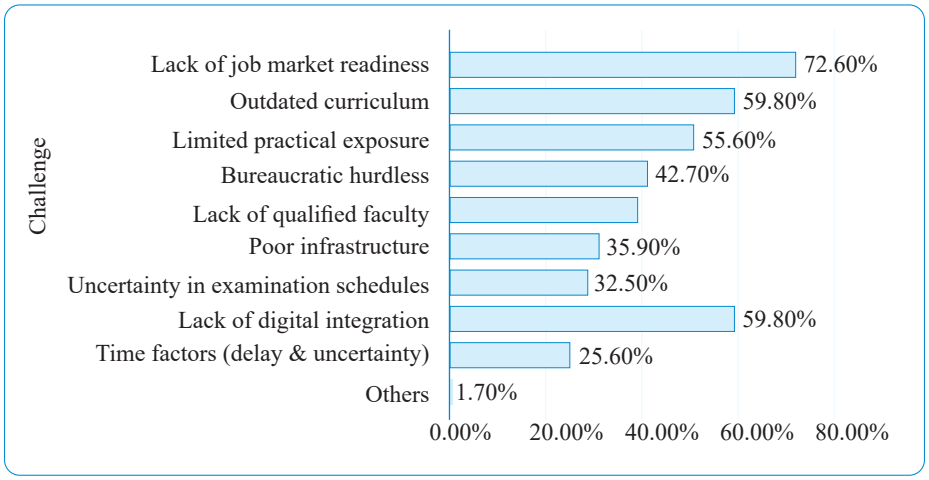

Figure 10: Challenges in the higher education system in Nepal

After the survey interviews were conducted, respondents were asked about the challenges they experienced within Nepal's higher education system. Priya, a second-year Bachelor of Engineering student, said:

> "Exams are often delayed, which disrupts our plans. The administration always gives illogical reasons." Similarly, Anurag, a third-year Computer Science undergraduate, stated: "Many professors do not stay updated with new technologies. Learning from someone who doesn't grasp the latest trends is challenging."

These statements encapsulate a widespread sentiment among students: that inadequate administrative practices disrupt academic schedules and create uncertainty about their prospects. These inefficiencies are symptomatic of deeper structural issues within the higher education system. They highlight how bureaucratic practices and a lack of

accountability can restrict an institution's ability to adapt and respond to the needs of its stakeholders. In this context, the rigid structures within Nepal's higher education system hinder both the quality of education and the timely provision of essential services.

Aligning educational outcomes with labor market demands is fundamental to the development of human capital. Schultz's human capital theory (1960) posits that education is a critical investment that enhances productivity and stimulates economic growth by equipping individuals with skills necessary for effective workforce participation. However, the current higher education system reveals significant gaps in both practical and digital competencies, as reported by respondents. Graduates often lack the skills demanded by rapidly evolving and technology-driven job markets, rendering their qualifications less relevant. This disconnect not only undermines the potential of education to develop human capital but also obstructs broader socio-economic progress. The findings illustrate a fundamental misalignment between academic learning and the practical needs of students. Mezirow's (2000) theory of transformative learning supports this critique, emphasizing the importance of experiential learning in enabling individuals to effectively adapt to and address real-world challenges.

A paradigm shift is required in curriculum development and institutional strategies, including the integration of interdisciplinary courses that combine technical skills with critical thinking. This shift could produce graduates who are not only technically proficient but also capable of innovative problem-solving. Marginson's (2011) analysis of global higher education identifies similar challenges, arguing that outdated educational frameworks often stifle innovation and fail to meet the evolving requirements of labor markets. In Nepal's context, these systemic shortcomings reflect a broader need for reform to align academic programs with international standards, equip students with essential practical skills, and foster an environment conducive to creativity and innovation.

The persistent mismatch between educational outcomes and employability aligns with critiques grounded in human capital theory (Schultz, 1961; Becker, 1964), which asserts that education plays a pivotal role in developing economically productive skills. Yet, when educational systems fail to deliver relevant competencies, the expected returns on human capital investments (Sharma & Dangal, 2019) remain unrealized. Strengthening partnerships between industry and academia is essential to ensure that education remains responsive to market needs. It is crucial to move beyond theoretical instruction and traditional examinations toward providing students with practical exposure and opportunities to engage in workforce development. These collaborations can facilitate experiential learning through internships, joint projects, and industry-academic initiatives, allowing students to gain real-world experience while actively contributing to the labor force.

Respondents' concerns about overly theoretical teaching highlight a significant issue: the declining return on investment (ROI) in education. This trend calls into question the effectiveness of educational spending and erodes trust in higher education's role as a driver of economic growth in Nepal. The findings also emphasize the need to view higher education not merely as a financial burden, but as a strategic investment in human capital—capable of delivering both economic and social returns when aligned with labor market demands. Psacharopoulos and Patrinos (2018) argue that educational returns are maximized when systems prioritize quality, relevance, and equitable access—elements that remain underdeveloped in Nepal.

Students must be regularly introduced to new knowledge and ideologies in ways that promote contextual and deep learning. Mechanisms should be developed to ensure not only surface-level understanding but also in-depth mastery of content. Additionally, leveraging artificial intelligence (AI)

tools to create personalized learning pathways can enhance student engagement and tailor education to individual needs, thereby improving both learning outcomes and employability. These practices align with global trends that increasingly emphasize blended learning, project-based curricula, and industry-academic partnerships (Freeman et al., 2014).

Incentivizing research-oriented programs could help retain exceptional talent, improving the quality of local higher education and its contribution to human capital. Such measures would position Nepal's education system more competitively within the global economy while fostering sustainable economic growth. The lack of practical experience directly impacts graduates' employability, perpetuating a cycle of underemployment and frustration. The employability framework underscores the critical importance of internships, apprenticeships, and real-world projects in connecting education with employment (Knight & Yorke, 2003). These components are essential considerations for policymakers (Pandey, 2023). The growing interest in vocational and skills-based education among participants reflects awareness of shifting labor market requirements. Traditional higher education models must evolve to accommodate this dynamic landscape by adopting flexible and innovative strategies that build human capital. Participants also emphasized the need to integrate digital platforms, artificial intelligence, and industry partnerships to modernize educational practices and enhance their relevance.

Expanding vocational and technical institutions represents a key step toward developing a workforce with specialized skills. These institutions can help bridge the gap between education and employability, thereby contributing directly to human capital development. Moreover, hybrid learning models that combine traditional classroom teaching with online education offer students greater flexibility and allow them to acquire diverse skills at their own pace. Rethinking higher education to focus on skill acquisition, experiential learning, and global competitiveness can improve education's ROI and reinforce its role in human capital development. Such reforms are vital not only for empowering individuals but also for promoting economic resilience and sustainable growth in an increasingly knowledge-based global economy. As Bhandari (2021) notes, the responsibility to explore and apply innovative ideas now falls to the new generation.

The results highlight structural weaknesses in Nepal's higher education system—including the mismatch between academic outcomes and labor market demands, limited digital and practical skills, and unequal access to quality education. These challenges align with the principles of PMPD, which advocates for inclusive and collaborative strategies to reduce socioeconomic inequality. Significant barriers remain for women, ethnic minorities, and low-income students; however, many are actively striving to overcome these obstacles.

PMPD responds to these demands by promoting policies aimed at ensuring fair opportunities for all. A key issue is the gap between academia and industry, particularly in terms of stakeholder cooperation. However, PMPD aligns with Mezirow's (2000) concept of transformative learning, which emphasizes experience-based and flexible learning as a means of empowering individuals to engage in socioeconomic development. Higher education, viewed as a transformative force, can serve as a vehicle for fostering democratic principles and civic engagement by embedding practical skills and critical thinking within its curricula.

Conclusion

Nepal has the potential to transform its higher education system into a catalyst for inclusive growth, global competitiveness, and sustainable development. To realize this potential, policymakers, educators, and stakeholders must collaborate to ensure that higher education becomes a foundational pillar for future progress. Key

challenges include outdated curricula, inadequate infrastructure, and a limited focus on practical skills—all of which contribute to the disconnect between educational outcomes and labor market needs.

Survey results indicate that most respondents perceive the quality of higher education as average or poor, underscoring the urgent need for reform. The study highlights the critical importance of modernizing curricula, strengthening infrastructural capacity, and integrating information technology tools to enhance the accessibility and quality of educational offerings. Addressing these issues is vital not only for retaining domestic talent but also for positioning Nepal as a competitive player in the global education and employment sectors.

Furthermore, the study underscores the potential for innovation-driven reforms to foster a more inclusive and future-oriented educational framework. By prioritizing vocational training, fostering global collaborations, and implementing research-informed policies, Nepal can shift from a rote-learning paradigm to one that nurtures creativity, critical thinking, and employability. As students increasingly aspire to pursue international opportunities, Nepal must build a higher education ecosystem that meets global standards while addressing the unique needs of its diverse student population. Rethinking higher education in Nepal demands a comprehensive approach that addresses systemic gaps, incorporates advanced technologies, and promotes innovation.

The urgency to reform Nepal's higher education system to make it more relevant for achieving inclusive growth, global competitiveness, and sustainable development is clear. These goals are grounded in principles of equitable access, participatory governance, and socio-economic empowerment. They highlight the need for an education system that addresses the systemic conditions under which social mobility can occur—ensuring opportunities for all, and especially for marginalized groups. Engaging educators, stakeholders, and policymakers in a collaborative policymaking process would reflect PMPD's vision of democratic governance. Strengthening such alliances enhances the ability of education systems to respond to market trends while contributing to economic development. Therefore, policy efforts should address the issue of brain drain and empower youth through a combination of scholarships, career counseling, and opportunities for international exposure.

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