



Understanding the Crisis Management in Higher Education (A Case Study of Nepal)

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Abstract

The student enrolment crisis has garnered significant attention within Nepalese academic circles, policy-making bodies, and the educational sphere. Both private and public institutions of higher education, including universities, campuses, and colleges, face financial constraints due to low student enrolment rates at higher levels of education. This study recommended using a quantitative research approach to better understand how higher-level educational leaders address enrolment crises, including their perspectives, experiences, and approaches, because it is less time-consuming, can be generalised to a larger population, and reduces researchers' bias in data collection.

A structured questionnaire and a survey-based study were proposed to conduct primary research on this topic, with the latter used to collect real-world data. It is recommended that 500 higher-level administrators be randomly selected from private and public educational institutions in Chitwan, Nawalparasi, Kathmandu, Patan, Pokhara, and Bhaktapur to constitute the sample population. Furthermore, the conventional paradigm for understanding higher-level educational institutions' enrolment crises is often narrowly focused, potentially overlooking crucial elements for effective crisis management.

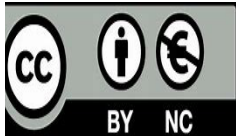
As a result, this study promotes a comprehensive strategy for understanding and addressing potential enrolment crises in academic environments. This research aims to improve readiness and planning mechanisms for handling student enrolment crises in higher education by expanding the conceptual framework to encompass a range of crises, including those with economic, political, or influence-related elements.

Keywords: *crisis management, education system, higher education, holistic framework, Nepal, systematic analysis, university*

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Introduction

The academic community frequently engages in rigorous debates due to the common confusion and misunderstanding surrounding crisis leadership and management concepts within Higher Level Education Institutions (HLEIs) (Bista, Sharma, & Raby, 2019). In any organisational setting, crises are characterised by inherent threats, uncertainty, and urgency. These situations often arise unexpectedly and with little warning, highlighting their sudden nature. The perceived impact on stakeholders is a key part of crisis management (Johnston, 2019). The phrase "student enrolment crisis" usually refers to a significant, often unexpected drop in student numbers at colleges, campus and universities (Martin, 1980).

The student enrolment crisis in higher education is a significant and urgent phenomenon during our country's transformative stage. With generous changes in higher education and ongoing reforms, HLEIs face diverse challenges as integral components of the social system. Among the key challenges, the most critical is the student crisis, which requires primary attention (Grawe, 2018). Effectively managing the student enrolment crisis requires both controlling its effects and mitigating them, which can then help the HLEIs grow (Brennan & Stern, 2017).

We emphasise the importance of HLEIs management perspectives in addressing earlier challenges, drawing significantly on relevant literature and data through a systematic review and in-depth analysis (Bista et al., 2019).

The causes of the student crisis are categorised into societal context, internal components of higher education, and individual factors. Current issues in student crisis management have been identified, including a narrow understanding of principals/campus chiefs/faculty heads, as well as a lack of crisis management concepts in higher education (Boin et al., 2016). Grawe, 2018. Bista et al. (2019) proposed five effective student crisis management principles, emphasising a comprehensive objective, local initiation, prioritisation of values, collective agreement, and operational and adaptable principles (O'Connor,

1987).

Zdziarski, Dunkel, and Rollo (2007) emphasise that establishing a student crisis management mechanism requires discussion, with a focus on early warning systems, rapid response, restoration, reconstruction, support, and security. Additionally, Miller and Geisel (2021) emphasise the organisational setup and resource deployment during the crisis management process, underscoring the importance of ideological and political education for college students and party-building efforts in crisis management. As the landscape of higher education in Nepal undergoes significant changes, students' demands and aspirations are also rising. At the same time, the educational sector is facing challenges from both globalisation and human-caused disruptions, leading to a significant decline in student enrolment (Adhikari et al., 2026).

Baral, Gurung, and Adhikari (2024) and Khanal, Gaulee, and Simpson (2021) highlight that the student enrolment crisis has far-reaching implications for the nation's overall progress and productivity. Given the above mentioned challenges, academic leaders must develop strong leadership skills and explore different ways to reduce the negative effects of declining student enrolment and retention. This proactive approach is essential for maintaining educational quality and supporting national development in Nepalese HLEIs (Adhikari et al., 2026).

In the fiscal year 2021-22, 114,000 Nepali students obtained NOC permits to study abroad, which is expected to rise. Despite the growth of colleges in Nepal with ties to foreign HLEIs, many students still choose to study abroad. For Nepali students, getting an education overseas is often seen as a way to improve their social standing. This is driven by factors like economic instability, an uncertain future, and a lack of job opportunities in the national labour market (Baral et al., 2024; Bista et al., 2019).

Nepal's HLEIs sector face a significant crisis, encompassing challenges across both public and private institutions. In the early 2000s, private higher education received considerable

government support; however, challenges arose from its perception as a business venture rather than as a crucial component of a national educational plan (Bista et al., 2019). Academic proficiency assessments reveal different levels of educational quality across public and private HLEIs including campuses and colleges. HLEIs, campuses and colleges that are affiliated with Nepal's National Education Policy undergo comprehensive quality assessments conducted by the Ministry of Education, Nepal. The sophisticated landscape of HLEIs reflects the dynamics of higher education in Nepal (Pokharel, 2023).

Nepal's higher education system faces a critical condition, marked by low pass rates, a preference for foreign HLEIs, haphazard establishment of educational institutions, poorer educational quality, and irregular academic calendars. The root causes lie in political ignorance, union influence hindering policy making, and the unplanned creation of HLEIs without clear objectives (Baral et al., 2024). The unresolved debate on free or subsidised higher education leads to underinvestment. The lack of a policy closely associated with national development goals hinders the development of skilled human resources. This study examines the factors influencing leaders' perceptions of preparedness and their experiences in low student enrolment shortages across Nepalese HLEIs (Bista et al., 2019).

Many authors (for example, Bundy et al. (2017); Sharma et al. (2022); Hazaa Almanthari and Al-Swidi (2021); Joshi et al. (2023) and Baral et al. (2024) highlighted critical reasons for declining student enrolment in higher education. They suggest that a lack of diverse courses, limited job opportunities, and a weak economy could discourage students with diverse interests from pursuing higher education, thereby worsening the current situation of HLEIs.

Outdated educational policies and regulations are also contributing to the student enrolment crisis in Nepalese universities, campuses, and colleges. It is further stated that if not associated with the advancing needs of the education sector, government policies and regulations can contribute to inefficiencies and challenges in meeting the

demand for higher education (Baral et al., 2023). The next problem contributing to the decline in student numbers is the mismatch between degrees and the job market. Suppose a perceived mismatch exists between the degree of HLEIs offer and the job market demands. In that case, students would be less likely to enrol, contributing to the student enrolment crisis (Shrestha, 2021).

The HLEIs enrolment crisis underscores the need for a comprehensive understanding to justify the broad implementation of education planning and its execution. It acknowledges that many student enrolment crisis phases face challenges in effective management due to slow problem-solving, highlighting the significance of proactive efforts to address the student enrolment crisis. In this context, systems theory emphasises the need to comprehensively understand crisis management as a holistic system that incorporates diverse factors and considerations (Gigliotti, 2019).

Our research employs systems theory to investigate the determinants shaping leaders' assessments of preparedness and their experiences during low-enrolment crises in Nepalese HLEIs. This theoretical framework is particularly well-suited to this study because it offers a comprehensive perspective, conceptualising the HLEIs as an integrated whole in which the collective is greater than the sum of its individual components. Abu et al. (2021) highlighted that consequently, it necessitates examining the entire HLEIs' system, including its organisational structure, prevailing culture, established policies, and broader external context, to comprehend the intricacies of crises fully (Bertalanffy, 1968).

Furthermore, the principle of interconnectedness highlights that changes in any segment of the HLEIs' system, including departments, administrative divisions, and different stakeholders, can trigger significant, indirect repercussions. This principle facilitates the identification of underlying causes and potential consequences (Gigliotti, 2019).

Systems theory underscores the significance of feedback loops, acknowledging the impact of both internal and external feedback mechanisms on a HLEIs' crisis management (Comfort, Boin &



Demchak, 2010). A thorough crisis analysis requires examining system boundaries and interactions with the external environment. Furthermore, an analysis of hierarchical structures and subsystems clarifies how localised issues can increase into a broader crisis phase. The theory also identifies and assesses unforeseen complications stemming from interactions among different elements during an emergency, recognising the diverse pathways that can lead to comparable outcomes (Al-Hawajreh et al., 2023; Abu Madi, Ayoubi & Alzbaidi, 2024; Chatzipanagiotou & Katsarou, 2023).

Given the crisis's evolving, increasing nature, the involvement of imaginative leaders is imperative to address it effectively. Visionary leaders must articulate a clear vision, convey a concise message, and establish strategic objectives to manage crisis phases, which often involve unforeseen and emergent events that lack prior notice (Rosenthal, Boin, & Comfort, 2001). Consequently, the situation demands creative leaders capable of making decisive decisions when needed and proactively leading in influencing and directing events (Almasarweh et al., 2022; Aefsky, 2021; Antonelli & Rehbein, 2017). The primary responsibility of an innovative leader is to uncover and harness the creative potential within their team members. They should actively strive to foster a continuous culture of learning and innovation within the organisation (Koehn, 2018; Alhalalmeh et al., 2020; Abu et al., 2021).

Strict regulations and limited academic freedom worsen the situation. Political leaders must urgently prioritise higher education, engage the educational community in policy formulation, and implement a well-defined education policy associated with national development goals, specialised institutions, and strategic investments. Collective efforts are crucial to overcoming the above-mentioned challenges and achieving meaningful reforms for Nepal's higher education system (Careerpedia, 2023).

Problem Statement

A low enrolment rate in HLEIs in Nepal poses a complex threat to the country's future. The shortage of skilled academicians, motivation for foreign

degrees, internationally unrecognised Nepalese degrees, low job placement opportunities, low job payment, family pressure, and a lady's pressure have resulted in a low enrolment rate in Nepalese higher education, which hampers economic growth, creates a less competitive job market, and hinders overall economic development in Nepal. Beyond economic consequences, a diminished pool of students pursuing higher education may undermine innovation and research, limiting the nation's capacity to address complex challenges and contribute to global advancements (Tamang & Shrestha, 2021).

Furthermore, the impact extends to social development, as a less-informed and less empowered citizenry emerges, affecting civic engagement and overall quality of life. Regarding global competitiveness, Nepal can face challenges in attracting investments and participating in the global knowledge economy due to its low enrolment rate, which hinders its ability to compete internationally. The demographic consequences are noteworthy, potentially leading to an aging population and a shortage of qualified professionals to meet evolving industry needs, thereby affecting the country's workforce and productivity (Baral et al., 2024; Kharel, 2022). Low enrolment rates can also worsen educational and economic disparities, limiting access to higher education for specific populations and perpetuating social inequalities, hindering efforts towards a more equitable society. The Nepalese government has a limited funding policy for HELIs students, so paying university fees without financial support at home can be challenging.

Objectives

The forthcoming primary research endeavour seeks to examine leaders' experiences navigating crises related to increased student enrolment. Furthermore, the study aims to pinpoint the principal leadership challenges encountered in crisis management within the context of HLEIs Nepal.

- To investigate leadership preparedness and student enrolment crisis management across Nepal.

- To investigate leadership crisis experiences and student enrolment crisis management across Nepal.
- To investigate leadership roles and student enrolment crisis management across Nepal.

Research Questions on Future Primary Research

What is the association between leadership preparedness and student enrolment crisis management across Nepalese higher educational institutions?

What is the association between leadership crisis experiences and student enrolment crisis management across Nepalese higher educational institutions?

What is the association between leadership roles and student enrolment crisis management across Nepalese higher educational institutions?

Rationale of the Study

Our study is a highly debated and new phenomenon in Nepal's HLEIs. Our study supports the addition of contemporary literature on Nepal's student enrolment crisis. Studying leaders' experiences dealing with critical situations and identifying critical challenges from a leadership perspective in HLEI students' crisis management across HLEIs in Nepal is instrumental in developing robust crisis response strategies, fostering resilience, and ensuring the continued well-being of students and the academic community. As a relatively recent addition to Nepal's higher education landscape, this publication has the potential to become a foundational resource for understanding the student enrolment crisis currently affecting Nepal's HLEIs.

Theoretical Perspectives on Crisis Management

Our study presents a theoretical framework for crisis management in the context of Nepal's higher-level student enrolment crisis, emphasising the need for a comprehensive approach that extends beyond simple planning and procedural execution. This study contends that the inherent complexity of crisis management stems from the

unpredictable nature of human behaviour and the diverse array of potential crisis scenarios. The central argument posits that successful crisis management necessitates comprehensive pre-crisis preparation, given that the speed of problem-solving is frequently inadequate during a crisis. This theoretical framework is grounded in systems theory, which emphasises the interconnectedness of different elements, including factors, protocols, emergency plans, involved actors, environmental conditions, and other pertinent components (Rocker Heppe, 2022).

Several sociological frameworks provide insights into the challenges of student enrolment within HLEIs. Structural functionalism conceptualises society as a cohesive system, thereby investigating the influence of institutional frameworks and policies on enrolment figures. Human capital theory posits education as an investment, focusing on students' assessments of its value (Ovie, 2022). Cultural capital theory, in turn, examines the impact of cultural resources on the decision-making processes related to higher education. Furthermore, social reproduction theory analyses how social structures perpetuate inequalities, including those stemming from class and caste distinctions. Finally, institutional theory investigates how organisations adhere to established norms, thereby shaping enrolment patterns.

Structural inequality theory focuses on systemic disparities, considering economic, regional, and gender factors. Social network theory analyses how relationships impact enrolment decisions. Critical pedagogy explores the transformative potential of education (Katarina, Ristvej, & Titko, 2018). The capability approach investigates whether educational opportunities enhance students' capabilities. Globalisation theory provides a framework for understanding the international factors shaping enrolment patterns. Critical race theory offers insights into how ethnicity and caste can exacerbate inequalities, which are valuable tools for researchers and policymakers seeking to understand and mitigate challenges in HLEIs (Aefsky, 2021).

This study adopts a systematic analysis and systems thinking methodology, leveraging general

systems theory models to construct a holistic systems model for HLEIs crisis management.

This approach aims to systematically understand and categorise the interconnected elements involved in crisis management. While focusing on crisis management, the systems theory provides a broader framework for comprehensively modeling the problems and factors associated with HLEIs crisis management. The study also acknowledges the capacity of a systems approach, as suggested by Simonovic, despite its underutilisation in disaster management. The scope of the work excludes the inevitable long-term student enrolment shortage, focusing instead on immediate crisis management and planning.

According to Aryal, cited by Rai (2023), as a dean of the Institute of Science and Technology, the government needs to formulate a policy to attract students to HLEIs. He points out that rising interest in studying abroad and the opportunity to earn money as a student overseas have led to a decline in the number of students at Nepali HLEIs. He further emphasises that students nowadays prefer diverse options and aspire to be global citizens rather than being confined to a single country.

Rai (2023), the vice-chancellor of Far-Western University, points to Nepal's economic struggles as a major factor in the decline of student populations at its HLEIs. He argues that the above mentioned conditions push students to look for opportunities overseas, resulting in emptier classrooms at home. Bilas Luitel, head of Birat Multiple College in Biratnagar, adds another layer to the problem. He believes that Tribhuvan University's delays in administering exams and releasing results are also driving students away. Luitel thinks that addressing the above mentioned specific issues could help reverse the trend.

Rai (2023) further highlighted that a dean at the Agriculture and Forestry University attributed the government's lack of investment in research to the HLEIs' current situation.

He suggests that proper research should be conducted before approving subjects for constituent or affiliated colleges. Nepali HLEIs should consider merging, as observed in the

banking sector.

Critical Challenges in University Students' Crisis Management from a Leadership Perspective

Coombs (2007, p. 2) described a crisis slightly differently, as a "perception of an unpredictable event" that threatens stakeholder expectations and influences an organisation's performance. A more dynamic definition of a crisis was suggested by Taneja et al. (2014). A crisis is a series of unforeseen events that launch a group, team, or organisation into a rapid downward spiral, with long-term effects if the situation is not handled effectively and efficiently.

Insufficient Preparedness and Planning

HLEIs frequently lack comprehensive crisis management plans, thereby impeding the efficacy of response strategies. Leaders face difficulties formulating explicit protocols and facilitating effective communication amid declines in student enrolment, which can intensify panic and obstruct implementation. The mental health dimensions of crises, particularly their effects on students, demand a sophisticated approach. Furthermore, constrained financial resources can impede the execution of crisis management plans, compelling leaders to devise innovative funding mechanisms. Collaboration with diverse stakeholders is essential, although it is challenging (Alexander, 2002).

This research underscores the significance of collaborative leadership during a crisis, pinpointing fundamental principles such as trust, effective communication, and authentic concern. It significantly contributes to organisational management, particularly in leadership succession planning, by offering practical transition management strategies and providing support. Intercultural experiences influence the crisis management of HLEIs' leaders in classroom settings. Leadership training, collaborations, and crisis management teams influence effective crisis response (Hussmann & Schippert, 2019). This study reveals that a leader's perspective on crisis preparedness is shaped by their attitude, understanding, personality, and industry type

(Akbaba, Altun, & Bulut, 2023).

Additionally, research findings highlight the role of optimism in crisis leadership and underscore the significance of effective decision-making for successful crisis mitigation. The same study also highlights challenges in HLEIs' system and emphasises the importance of understanding managers' personality traits for organisational viability. This research underscores the importance of collaborative leadership in times of crisis, highlighting essential tenets such as trust, clear communication, and authentic concern, which offers substantial contributions to organisational management, especially in the context of leadership succession planning, by presenting actionable transition management strategies and offering necessary support.

Intercultural experiences influence the crisis management of HLEIs' leaders in a classroom setting (Lindell & Perry, 2012). Leadership training, collaboration, and crisis management teams all influence an effective crisis response. This study reveals that a leader's perspective on crisis preparedness is shaped by attitude, understanding, personality, and industry type (Lobas, 2016).

Additionally, research findings highlight the role of optimism in crisis leadership and underscore the significance of effective decision-making for successful crisis mitigation. This study also highlights challenges in Nepal's HLEIs system and emphasises the importance of understanding managers' personality traits in organisational viability situations. Utilising technology for crisis communication can present complexities stemming from security and privacy considerations. Effective crisis management leadership necessitates a proactive stance in navigating these difficulties, prioritising preparedness, facilitating clear communication, and adopting a comprehensive strategy that accounts for the varied requirements of the student body (Baral et al., 2024).

Leadership readiness is of utmost importance in addressing the student enrolment crisis within Nepalese HLEIs. This approach necessitates a fundamental change, moving away from conventional power dynamics toward facilitation

and empowerment, thereby promoting both collaboration and adaptability. Leaders should prioritise collective endeavours over personal achievements, emphasising a flexible problem-solving methodology and acknowledging the necessity of collective strength. Furthermore, encouraging a balance between procedural rigor and innovation is essential for navigating emerging challenges, and cultivating an adaptive organisational culture is critical (Khanal et al., 2021).

Leadership Functions in the Times of Crisis

Educational leaders play a critical role in mitigating student enrolment crises by effectively managing a diverse range of responsibilities. During such critical periods, leaders undertake strategic planning, evaluate the crisis's ramifications, and pinpoint underlying causes to formulate comprehensive strategies (Oplatka, 2023). Transparent and open communication is paramount, requiring leaders to maintain consistent dialogue with stakeholders students, parents, faculty, and staff to cultivate trust and ensure widespread awareness (Wilmot & Thompson, 2022). Proactive initiatives involve leaders modifying enrolment policies to bolster appeal, encompassing revisions to admission criteria, the provision of flexible learning modalities, and the offering of financial aid (Thomson, Roache, & Muschette, 2023; Wilmot & Thompson, 2022). Furthermore, resource allocation becomes critical as leaders strategically reallocate budgets, invest in marketing endeavours, and establish support systems for students encountering financial or academic difficulties. By emphasising collaboration, leaders cultivate partnerships with the local community, businesses, and other educational institutions to establish a robust support network (Oplatka, 2023; Sultan, 2023; Wisittigars & Siengthai, 2019).

Furthermore, the utilisation of technology in virtual recruitment and the establishment of scholarship initiatives represent novel approaches to attracting prospective students. The retention of current students and the cultivation of a conducive learning environment are facilitated by prioritising student support services, including counseling

and mentorship programmes. Educational leaders, in addition, champion supportive government policies and collaborate with policymakers to mitigate systemic factors that exacerbate enrolment challenges (Bista et al., 2019).

Young, Byrne-Jimenez and Grogan (2022) stated that data analytics is essential, enabling leaders to leverage data to gain insights into enrolment patterns, pinpoint areas of concern, and guide decision-making (Dearborn & Swanson, 2018). Ongoing assessment is highlighted, enabling leaders to evaluate the impact of enacted strategies, solicit feedback, and modify methodologies as required (Oplatka, 2023). Consequently, through above mentioned multifaceted functions, educational leaders substantially aid in addressing student enrolment challenges and securing the enduring viability and prosperity of their institutions (Bista et al., 2019). Strategic management is a complex process that includes several interconnected parts. These parts are: the organisation's culture, strategic planning, leadership, institutional research, resource allocation, financial management, personnel and human resources management, research and scholarly activities, student and campus support services, academic support services, internationalisation, and external relations. As mentioned above, the components' successful functioning and interaction are crucial for effective crisis strategic management (Kaul, Shah & El-Serag, 2020; Taylor & Machado, 2006).

Leadership Crisis Experience

The level of experience in decision-makers is identified as a potential influencer on leadership effectiveness. Boin suggests that stress does not invariably impair performance, thereby underscoring the significance of leadership experience. Seasoned leaders frequently demonstrate greater efficacy in sustaining performance amid challenging circumstances than those with less experience (Bassous, 2022; Kaul et al., 2020). Furthermore, supplementary studies corroborate the idea that the development of leadership capabilities is substantially influenced by an individual's life context and accumulated experience.

Virtual reality exercises, particularly in complex environments, have been shown to enhance a leader's capabilities (Adhikari, Urban & Koehler, 2025). Repetitive and realistic training is considered one of the best ways to manage the crisis phase. Fink argues that a lack of training in decision-making during a crisis can lead people to use unhealthy coping mechanisms, which then result in poor choices (Hølge-Hazelton et al., 2021).

Structural Functions Systems Theory (SFST)

SFST suggests that effective communication is crucial for managing crises. It emphasises the importance of information flowing accurately and transparently at all levels. Therefore, management should communicate effectively with employees, providing them with the necessary information during a crisis.

Maintaining consistent contact between superiors and subordinates is emphasised, as neglecting individuals can worsen circumstances. Dunlop (1993) suggests that leaders should take responsibility and guide their employees to reach their best performance.

Diffusion of Innovation Theory

Rogers (2003) introduced the diffusion of innovations theory, which advocates the sharing of information in a crisis. Lundvall (1995) also highlights that employees are encouraged to think creatively during the student enrolment crisis and generate innovative ideas to address the situation. It is essential to be prepared with alternative plans. The theory underscores the significance of proficient communication in the effective dissemination of ideas and information (Antonelli & Rehbein, 2017).

Unequal Human Capital Theory

Kariv (2022) introduced the Unequal Human Capital Theory, positing that disparities among employees can precipitate crises in workplace student enrolment. Discrimination predicated on class, job function, and compensation can engender employee discontent, potentially harming the organisation's public image. This discontent can then foster the circulation of baseless rumors,

thereby damaging the organisation's reputation. While Human Capital Theory is not explicitly formulated as a crisis-management instrument, its tenets can be relevant to addressing student-enrolment difficulties.

By focusing on education quality and adaptability, addressing inequality, implementing effective policies, and making strategic investments, institutions can work to manage and recover from a student enrollment crisis (Winston, 2020).

Leadership Theory

Leadership is a crucial factor in improving strategic performance, significantly affecting employees and guiding their thoughts and actions toward achieving organisational goals (Ludwig, 2015; Northouse, 2018; Johnston, 2019). Leadership is essential for achieving an organisation's goals, as it significantly affects how people behave at work, their performance, and overall productivity (Stern & Sundelius, 2002). Moreover, innovative leaders go beyond simply changing existing organisational structures; they are driven by a constant desire for improvement (Gigliotti, 2019).

Leadership preparedness involves continuous learning through permanent testing and experimentation, promoting adaptability and swift crisis response. Humility in leadership is crucial, as well as fostering a culture that values learning from failures, encourages resilience, and promotes innovation (Akbaba Altun & Bulut, 2023). Prioritising a high-trust environment is key to weathering the uncertainties of a crisis. Fostering peer empowerment and knowledge-sharing within individual efforts boosts problem-solving abilities.

Furthermore, leadership in Nepalese higher education embraces experiential learning and encourages flexibility in roles and responsibilities, contributing to effective responses to the dynamic nature of the student enrolment crisis (Khanal et al., 2021; Singh & Joshi, 2023).

Table 1. Summary of the Previous Study on Crisis Managers and Their Roles in Adjusting to It

References	Objectives	Methods used	Findings	Research gap
Charzpanigiotou & Katsaroni (2023); Roecker Heppel (2022)	To explore crisis management strategies of female HLEI leaders.	Qualitative approach (Interview)	The study highlights the importance of collaborative leadership and underscores the value of dedicated team dynamics during a crisis. Three critical crisis leadership principles identified are trust, communication, and care.	The interview data were collected from female leaders, which cannot address the experiences of male leaders in HLEIs, and lacked a multi-method approach.
Gigliotti (2019), Samuel and Tsapayi (2023)	To examine the challenges leaders and managers face in transitioning job roles within private higher education institutions.	Qualitative approach (Grounded Theory)	The study makes a significant contribution to organisational management, particularly in leadership succession planning. It reveals practical strategies for managing leadership transitions, promoting smoother changes, and providing adequate support to leaders during organisational shifts.	The interview data were collected from private university leaders, who cannot address public university leaders' experiences, and lack multi-method research.
Hickok and Yilmaz (2022); Schweisfurth & Gu, 2009)	To investigate how the intercultural experiences of HLEI leaders impact their approach to crisis management in the classroom.	The qualitative approach (Grounded Theory)	The results indicate that their intercultural experiences influence how HLEI leaders manage the student enrolment crisis in a classroom setting.	The study was based on qualitative semi-structured interviews. This research lacked multi-approach methods and suffered from unsuitable sampling methods.



Ovie (2022)	To explore crisis response strategies used by leaders in HLEIs.	Qualitative semi-structured interview	The results indicate that effective crisis response is influenced by several factors, including leader crisis training, internal and external collaboration, and the establishment of a crisis management team.	The study was based on qualitative semi-structured interviews. This research lacked multi-method approaches and employed limited sampling methods.
Hussmann and Schipper (2019).	To investigate the factors that may impact a leader's prioritisation in addressing crisis preparedness.	Qualitative exploratory multiple case study	The findings highlight that a leader's perspective on crisis preparedness is shaped by their attitude, understanding of crisis, and personality. Additionally, the study highlights that the industry type, characterised by specific rules and regulations, can also impact crisis preparedness.	The research method has primarily focused on leaders but lacks diversity; future research should broaden its scope to provide a more nuanced understanding of the factors influencing crisis preparedness.
Fernandez and Shaw (2020)	To identify the distinctive features of the systemic crisis of HLEIs in Russia in the conditions of the global economic crisis	The qualitative approach	Research findings revealed three fundamental crisis leadership practices: trust, communication, and care. Participants reflected on their experiences as leaders navigating the crisis and shared insights into their personal leadership practices.	The research findings were based on qualitative interview data with female leaders, who faced the generalisation of the results and gender disparity.
Akbaba Altun and Bulut (2023)	To investigate how school administrators in Turkey managed the crisis caused by the COVID-19 outbreak.	A case study	The results revealed two primary themes that formed the foundation for the research issues. The initial theme focused on whether school administrators had crisis plans, while the second addressed how these plans were implemented.	The study employed a qualitative case study, which was limited by the difficulty in generalising findings across similar contexts.
Adhikari and Shrestha (2024)	To examine the context and concept of higher education for sustainable development in HLEIs in Nepal.	Qualitative interview	The results show that a lack of literacy and a persuasive strategy hampers HLEI leaders in advocating for Sustainable Development Goal 4.7 with the government, funding agencies, and within university faculties and trade unions. Significantly, there is a notable gap in both understanding and initiatives for conceptualising HLEIs for sustainable development.	The research highlights a generalisability gap in the specific representation of Nepal's experience of HLEI for Sustainable Development. Furthermore, a research gap arises from respondents' limited knowledge of HLEI for Sustainable Development, leading to perceived saturation of thoughts during interviews.
Monclini & Diers-Lawson (2022).	To examine the role of contingency theory in mitigating crisis issues	Quantitative face-to-face interview	The results indicate that the critical role of optimism in successful crisis leadership contributes to positive outcomes for teams and organisations. It also highlights the importance of effective executive decision-making as a key factor in the speed of crisis mitigation.	We identify a research gap regarding the level of attention that public institutions in Qatar pay to essential growth. We also emphasise the need to assess the effectiveness of initiatives in keeping HLEIs at the forefront of emerging creative methods and fostering a culture of creative thinking.
Carcepedia. (2023).	To understand the current student crisis in Nepalese HLEIs.	Qualitative interview	It was highlighted that Nepal's HLEIs system is critical due to low pass rates, a preference for foreign HLEIs, unchecked establishment of new institutions, inadequate funding, and a lack of clear objectives.	Qualitative research is limited in its ability to generalise results, so new research is required to identify the root causes of the crisis in Nepalese HLEIs.

Danti and Hochman (2022)	To investigate whether a crisis increases the impact of a manager's personal characteristics on ethical leadership.	The survey design	The results highlight the significance of explaining managers' personality traits for the long-term viability of organisations and further emphasise the substantial importance of the relationship between managers and their employees during the student enrolment crisis.	The research context differs from the Nepalese context, so further research is necessary to address the Nepalese student enrolment crisis.
Jones et al. (2021)	To explore how schools coped with this complexity by gathering the perspectives of school leaders.	The survey design	Leaders observed improved teamwork, a deeper understanding of education, and a stronger community spirit despite the difficulties. The results highlight a common desire among leaders to leverage these positive aspects to advance both learning and leadership.	The research context was based at the school level, but this research aims to examine the crisis experiences of HLEIs' leaders.

Summary of the Literature Review

Previous studies have emphasised the importance of collaborative leadership during a crisis, identifying critical principles such as trust, effective communication, and genuine care. It significantly contributes to organisational management, particularly in leadership succession planning, by offering practical transition management strategies and providing support. Inter-cultural experiences influence the crisis management of HLEIs' leaders in classroom settings. Leadership training, collaboration, and crisis management teams all influence an effective crisis response. This study reveals that a leader's perspective on crisis preparedness is shaped by attitude, understanding, personality, and industry type.

Additionally, research findings highlight the role of optimism in crisis leadership and underscore the significance of effective decision-making for successful crisis mitigation. The study also highlights challenges in Nepal's higher education system and emphasises the importance of understanding managers' personality traits for organisational viability (see Table 1).

Research Gap

Existing research on the student enrolment crisis in Nepalese HLEIs highlights several gaps. The previous studies' exclusive focus on female leaders creates a gender-based limitation, neglecting insights into male leaders' experiences. Methodologically, reliance on qualitative interviews lacks a multi-approach and suitable sampling method, indicating a gap in understanding the crisis. Previous qualitative case studies lack diversity, revealing a gap in comprehensively studying the experiences of different stakeholders during the student enrolment crisis (see Table 1).

Future research should broaden its scope for a more inclusive understanding of crisis preparedness factors. Generalisation gaps are evident in the qualitative findings and the case study, underscoring the need for a more inclusive approach that accounts for diverse contexts in Nepalese HLEIs. The specific representation of Nepal's experience indicates a generalisability gap and suggests the need for a more inclusive exploration of factors influencing the student enrolment crisis. Identifying a research gap in public institutions in Qatar highlights the need to assess initiatives to foster creative methods and a thinking culture to address the student enrolment crisis. However, it does not account for the Nepalese context.

Furthermore, the limitations of generalisation in qualitative research highlight the need for new research to uncover the root causes of the Nepalese student enrolment crisis. Additionally, the differences in the research context call for further investigation into the specific challenges within the Nepalese HLEI system, highlighting a contextual research gap. The research study focused on the school level and identified a

gap, aiming to examine the experiences of higher-level leaders during the student enrolment crisis, which signified a focus-related gap that requires exploration.

Our study has focused on the student enrolment crisis in HLEIs in Nepal. In this context, no prior primary studies have examined student scarcity in Nepal. The previous studies undertaken by Rocker Heppe (2022), Samuel and Tsapayi (2023), Hickok and Yilmaz (2022), Ovie (2022); Hussmann and Schippert (2019), Fernandez and Shaw (2020), Akbaba Altun and Bulut (2023), Damti and Hochman (2022), and Jones et al. (2021) have not addressed the specific area of the student enrolment crisis within Nepalese HLEIs. This gap in the literature underscores the need for further investigation and exploration of crisis management strategies tailored to the context of student enrolment challenges in Nepalese landscape.

Hypothesis

Our future primary research focuses on the following hypothesis.

H1: *There is an association between leadership preparedness and student enrolment crisis management in HLEIs.*

H2: *There is an association between leadership crisis experiences and student enrolment crisis management in HLEIs.*

H3: *There is an association between leadership roles and student enrolment crisis management in HLEIs.*

Conceptual Framework

Effective management of a student enrolment crisis in HLEIs requires a combination of leadership preparedness, clear roles and responsibilities, and lessons learned from previous crisis experiences. These fundamentals work together to foster resilience, adaptability, and a proactive approach to crisis management within educational institutions (Kaul et al., 2020).

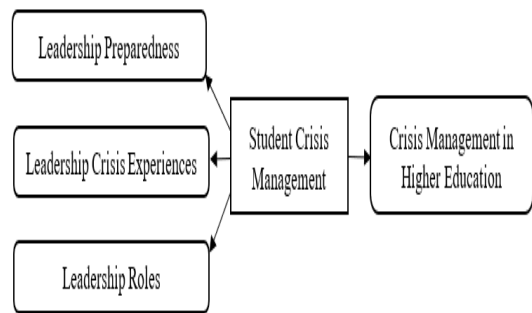


Figure 1. Crisis Management Leadership Approach in Nepalese Higher Education

Holistic University Crisis Management Systems Theory Approach

With complex topics, the scientific frameworks must mirror the scope of the problem. Since crisis management, even within the scope of the HLEI, involves numerous human interactions and a wide range of crisis possibilities, it is challenging to make sensible generalisations about the issues and their connections to better understand why crisis management requires not only planning and centrally led procedural execution but also broad implementation.

Despite this already sizeable complexity, we would like to view HLEI crisis management holistically, encompassing major factors that are typically not discussed or associated with the theme. Moerschell and Novak (2019, 30–40) also emphasise the need for a holistic view, as failing to do so will result in misalignment, including loss of message control, rumormongering, prolonged disruption of operations, and an increased likelihood of reputational damage.

In addition, we will treat HLEIs not only as places of education, entities, institutions, or situated places in the world, but also as a foundation for the future scientific community. As complex as universities are in their capacities, as expressed, the intervention on the scope of systematic HLEI's crisis management factors must be understood holistically.

Most typical viewpoints are events that can be called crises in news related to infrastructure

(Wang, 2016, pp. 1–4) and human behavior (Wang, 2019, pp. 870–874). On university violence Johnston (2019, 45–58), MacNeil and Topping (2009, 72), sudden riots, cyber threats Mo, Cheng, & Li (2023, 109–113) (Also on automatisisation of crisis management), illegal acts, and acts MacNeil and Topping, Keith (2009, 64–94, particularly 67–71), Jenkins and Goodman (2015, 201–209), Works, Lee and Wong (2021, 39–52), against public morals or, in some cases, even social media. We want to extend the theme of crisis management to other factors, including cultures, institutions, officials, ministries, and the country's regulatory and economic environment. Far more of university crisis management is typically covered at the broadest scope.

Although we cannot foreground into great detail in most cases, even providing a broader explanation of possible university crisis factors offers a more comprehensive understanding of the complexity of HLEI's crisis management and its underlying factors. What we will not cover is the style of the crisis management or how it is conducted, since both are, in most cases, situational, which can primarily appeal to case studies like the case of Al-Olimat and Alkshali's study on the impact of strategic intelligence on crisis management styles at Al al-Bayt University Al-Olimat and Alkshali, 2023, 1693–1708). Or general crisis management information tools such as GIS, Ogrodniczak and Ryba (2017, 211–218). Also, Wang and Hutchins' case on the 2007 university shooting, with the question of what we have learned from it (Wang & Hutchins, 2010, pp. 552–572). Still, these cases are essential for understanding the variance in crisis management styles.

Most crises cannot be managed in the first place because problem-solving begins too slowly. Therefore, most of the effort must be seen before any crisis occurs. To continue this thought, we must first understand what we are trying to manage or plan for in crisis management. All aspects must be systematically understood as a holistic web of factors, including protocols, emergency plans, manuals, happenings, influences, environments, actors, hierarchies, customs, culture, history, legal, and publicity factors (Johnnie, 1992).

For the above mentioned purposes, we have developed a systems theory view in the form of a general model to facilitate this understanding by focusing on the categories and relations of each actor and their effects. The creation process of systems models has been done with the methods of systematic analysis (Jussila, Montonen and Nurmi (1992, 157–208), Hannula (2008, 111–125), Tervashonka (2023, 72–96), Tervashonka (2021, 29–63), (Jussila et al., 1992), and systems thinking Bertalanffy (1969/2015), 84–87), with the help of general systems theory of system approach (4–8, 30–41, 50–51) and systems theory models Rapoport et al. (1968, 452–495), Härkönen (2009, 77–86) and Härkönen (2013, 411–449).

Systematic analysis is mostly grounded theory-based, inherent content analysis of specific corpus material. Because our subject is more extensive, we also employ systematic analysis hermeneutic theory (SAH), as outlined by Tervashonka, Suominen, & Vesa (2020, 42–75), focusing on multiple corpus materials as a frame of reference. Division of labour with these methods and approaches follows the stages of this work, from early systematic source analysis (systematic analysis + SAH theory) to connectivity thinking in systems terms, and systems theory as the theoretical framework for modeling the generalization model for our subject.

With systems science in mind, an attempt has been made to provide a general view of the problems and their environment through a general systems model, accompanied by an explanation. Although this does not include a complete systems theory for a single article on the general systems problem of HLEI's crisis management, a general systems model is sufficient for explanatory power. The alternative would be to develop an entire theory with systems theory in mind, which would require at least one book's scope. Systems theory is therefore used as a general framework to develop a systems model that explains the key problems and factors in crisis management, facilitating an understanding of this topic.

Simonovic (2015, 70–83) and Härkönen (2009) used the systems approach in crisis management. However, as Simonovic suggests in the article



Systems Approach to Management of Disasters – A Missed Opportunity? Despite its extraordinary capacity to hold and express information, the system's approach is not always used. Our focus is mainly on crisis management and planning before any crisis or disaster, excluding “long-term” crises such as lack of educational funding, student runs, problems of democratic process in HLEI's management, and governmental interference with HLEI's autonomy.

A lot can be said about the benefits of university autonomy, free science, and free education for any nation seeking to develop science. The results of inadequate education funding by any government can be seen in brain drain, student unrest, and declining value indicators, such as PISA's results in Finland. All governments operating with a broader scope than their terms allow for the country's educational sector can see what higher-education benefits and specialisation can bring over several decades. Historically, the growth of the economy and productivity in Japan, China, India, and Finland from 1970 to 1990 is evident. The primary concern is that demographics, foreign trade, and investments have a significant impact on national growth.

Therefore, the only viable factors that the government can affect are the quality and accessibility of education and the level of specialisation. Other factors also have additional effects, such as infrastructure networks, workforce, local laws, and business regulations. The competition is about quality in the long term, no country can get or maintain quality without a properly funded education sector. The quality of education is closely related to previous improvements that affect a nation's ability to build a better future (Singh & Chahal, 2015).

Along the above mentioned lines, HLEI's crisis management must also be planned, because only actions taken beforehand can alter outcomes made during the crisis, sometimes even avoiding the crisis entirely. To understand the possible factors and the variance that crisis HLEIs can exhibit, we will first discuss the categories and relations among factors in the general systems theory model. Then, we will go through each category to

explain the entire model of factors affecting HLEI crisis management.

Our Work Begins with Factors Categorised in the Following Factor Model

The categorisation of factors gives a general picture of the issues that fall under holistic HLEI's crisis management. This general model is the overall picture of each factor group. However, each category can be modeled independently, so, in principle, we could build a systems model for crisis management. Because this would require around 100 pages, we will limit the development scope to this overview model and its components. With this beginning, the theory's model is entirely formalised by its focus. The benefit of the model is the generalisation of information, but systems theory-driven models are also detailed in factor relations, influences, external, and internal functions.

To start this task and limit the work to the topic of the current article, we will expand each factor group into the main categories that affect the HLEI's crisis. The above mentioned crisis factors can be either positive (securing the university from crisis) or negative and have opposite effects, and can be both external and internal. HLEI's management has more power over internal affairs, and external influences and capabilities to secure the HLEI against external crises are limited by the HLEI's scope, annual budgets, available funds, management skills, and professional planning for potential futures. A HLEI's legal status also has broad effects on each of its functions. If something is ordered to exist by law, it can secure enough funds for expressed actions. It can also drain the HLEI, depending on the fiscal policies and their alignment with the realities.

Internal problems can also be caused by HLEI administration. Poor budget planning and visionless resource allocation without considering fields of study are inadequate foundations for any HLEI. The lack of funding for methodological and philosophical questioning of science will be met by increasing time spent on the above mentioned dissertations. Many governments are funding HLEIs through complex calculations of

student numbers and degree quantities, as well as extensive assessments of the resources required for each field of study. Suppose that the degrees received are one of the main factors in government funding. In that case, HLEIs might benefit from establishing method centers or otherwise considering subsidies for this purpose to ensure that degrees are completed with relative ease within the timeframe for each degree. For a thesis, it surely helps to know what we are supposed to do before starting thesis writing (Hannula, 2008).

For students, the reason for extending study time is broadly varied; effective learning, researching, writing, and idea creation have much to do with the time spent on HLEI's degrees. Many external factors can enhance each student's effectiveness. Still, the HLEI's capacity for learning and understanding is the most important internal factor, because it cannot address these issues. Given the length of the studies, the external crisis is often related to HLEI's funding, which is mainly a government problem. Using this example of internal and external crisis factors, we can examine each factor in turn.

Parts of the Factor Model

People

The first factor is the people involved with the HLEI, including both internal and external capacities. Internal human resources include administration, staff members, students, and anyone closely related to them who would already be at the border of internal factors. External include visitors, civil servants, politicians, influencers, and officials. Many external actors (e.g., ministries and companies) can also exert the power of the actor factor, but we will discuss these possibilities within the actors' group. Hackers, scammers, and harmful bots, perpetrated by individuals, institutions, and countries, would fall under the categories of people and actors, depending on the situation, partly reflecting the difficulty in securing universities from cyberattacks. Mo et al. (2023, 109–113) discuss cyberattack threats.

Regulations and Laws

University customs, national customs, regulations,

laws, HLEI laws, HLEI leadership regulations, protocols, and rules form this factor. The entire web of the regulatory environment partly dictates how a particular HLEI and its people plan and act, either by abiding by regulations and laws or by not doing so.

Culture

Culture is a multifaceted factor; it encompasses the culture of individuals and their principles, as well as groups of people connected by shared cultural elements. Therefore, it is the reason for various acts, rationales, principles, personal and institutional philosophies, customs, and differing moral senses, arising from diverse age-group experiences and personal drifting factors. At best, culture in the academic sense can culminate in the culture of mind-building. It is not the cultivation's end goal, as in some religions; at best, it is a lifelong commitment to striving for higher standards for humanity (Hamadneh et al., 2021; Northouse, 2018).

Crisis Planning

The legally binding regulations for crisis preparedness encompass a range of components, including planning guidelines, safety measures, protocols, HLEI-wide strategies, faculty-specific initiatives, and departmental plans, such as those related to legal matters, marketing, patenting, and public relations (PR). Any information that can be organised, accessed, competently evaluated, and considered valuable contributes to the accumulation of knowledge in archives. This knowledge pertains explicitly to crisis management targets within the HLEI's or to external matters related to the HLEI, such as measures taken by the Ministry. From archives and programs, critical knowledge must also be disseminated to administrators and conveyed to changing personnel and, even more rapidly, to students (Drennan, McConnell, & Stark, 2015). It includes selecting crisis management tasks for equally competent administrative members, including those from the HLEI, faculty, and department administration. It is important not to overlook the need to maintain a public record of more important guidelines, given that anyone can enter HLEI. Many records are only silent



knowledge about how things work (Haddow, Bullock & Coppola, 2017). Still, development must occur before the crisis if there are too many overlaps or twists in public or non-public crisis protocols. Crisis planning is a constantly ongoing task in management, and understanding its holistic nature is categorically imperative (Deverell, 2010).

Publicity

HLEI lives from its publicity. Therefore, the press, international communication, HLEI PR, and everyone contributing to the HLEI, including all students and their activities, as well as press relations, all play a part in building the HLEI's national and international standing. No matter how small, every crisis can have a varied impact on HLEI functions and reputation, affecting its capacity to attract new students, academics, administrators, support personnel, projects, funding, companies, other institutions, and general goodwill. Additionally, the HLEI's public image can impact its governmental relations, which are crucial for its future.

Actors

Institutions, governments, ministries, companies, foreign nations, other HLEIs, publishing companies, and influential private individuals have varied effects on the HLEI and its connected parties. Each of these might have diverse effects on standing, public image, funding, social connectivity, culture, regulation, and national and international opportunities for HLEIs. In principle, HLEIs have varied autonomy to retain the healthy development of science. In many aspects, however, despite their unique position in national standing, HLEIs are influenced by these actors through the multitude of their influences and financial support. Education ministries determine where different fields of study will be located and funded; in many cases, external actors have significant influence and dictate which research gets funded and which does not. We assert that genuine autonomy for the HLEI can be realised when it operates based on its own accumulated foundational wealth. However, external assistance is often required for larger projects, laboratories, and long-term commitments that involve financial support and expertise

(Dunlop, 1993).

Autonomy is essential for any HLEI to advance science; only specialists in science can, to some extent, know what to experiment with and study; even then, this assessment can fail. Only openness to new ideas can keep the scientific community improving. Still, it cannot do it alone, necessitating that the mentioned actors understand and act to benefit open science. Without this understanding and reasonable effort, any actor can create a financial, relational, or international crisis for the HLEI. Sometimes, even reasonable attempts and wishes are just stones for the road to hell. Many crises can occur without a proper holistic understanding of HLEIs' societal and future-building importance. The only things that can alleviate this problem are knowledge, understanding, and long-duration commitments at the national and international levels.

Methods and Materials needed for Future Primary Research on Evaluating the Student Enrolment Crisis in Higher Education in Nepal

Our study will employ a quantitative research approach, measuring theoretical constructions by exploring relationships among variables in our future primary research. The variables are measurable and are often quantified using instruments, enabling analysis of numerical data using statistical methods. The quantitative research approach enables the understanding of the opinions, experiences, and ideas of higher-level leaders and faculty heads regarding leadership preparedness, crisis experiences, and their defined roles in managing the student enrolment crisis in higher education (Creswell & Plano Clark, 2018).

Philosophical Worldviews

The current world is populated by diverse individuals who view social reality. However, our recent study is based on a positivist philosophy that holds that a single objective truth exists. We believe that ontology defines terms, focusing on the specific "world" under study. Epistemological and ontological inquiries center on an individual's worldview. Methodology focuses on acquiring

knowledge (Williams, 2006). Lincoln and Guba (1985) emphasise the inquirer's approach to discovering what they believe can be known. Methodology, as explained by Proctor, concerns the means of acquiring knowledge about the world. At the same time, Guba and Lincoln emphasise the inquirer's approach to discovering what they believe can be known (Lincoln & Guba, 1985).

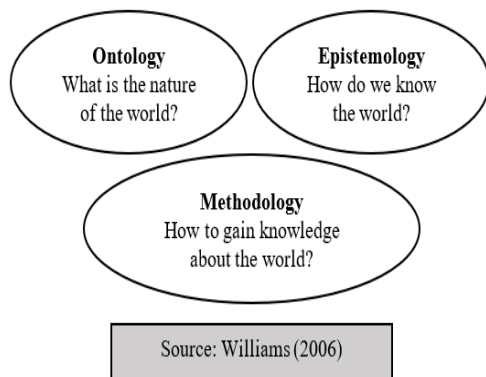


Figure 2. Our Primary Research Proposed This Research Paradigm

The Survey Design

The survey could be the most appropriate method for examining leaders' experiences in addressing higher-level student enrolment crises and identifying critical leadership challenges in crisis management for HLEI students across HLEIs in Nepal for the future primary research (Creswell & Plano Clark, 2018; Creswell & Creswell, 2018). As a quantitative tool, survey design can be used to understand attitudes, opinions, and experiences among HLEIs leaders and faculty heads of HLEIs, and to explore associations between leadership preparedness, crisis experiences, defined roles, and student crisis management for future primary research (Fink, 2015). We recommend to apply the survey design because it encompasses addressing descriptive questions, such as determining the percentage, chart, and graphical presentation, examining associations between variables like the association between leadership preparedness, crisis experiences, and defined roles, and examining predictive relationships over time in

the cross-sectional stage (Adhikari, 2022- 2023; Cohen, Manion, & Morrison, 2018; Creswell & Plano Clark, 2018).

The Population and Sample

Our study recommends selecting the population and sample from private and public Nepalese HLEIs in Kathmandu, Patan, Bhaktapur, Pokhara, Chitwan, and Nawalparasi, Nepal. The total population is unknown due to inconsistent online data on HLEIs leaders and faculty heads at the educational institutions mentioned above. A sample population of 500 ($N = 500$) is proposed to be selected using simple random sampling techniques (Fowler, 2014; Lim, 2013). We recommend following the necessary ethics to access our population. However, we could have faced difficulty setting up the sample because contacting HLEIs leaders was challenging and required multiple attempts to reach them.

We recommend using a survey questionnaire to collect data from HLEI's leaders because surveys facilitate numerical data collection, are efficient and cost-effective, and offer anonymity and confidentiality, as well as standardization, scalability, objective measurement, quantitative analysis, and generalisability (Cohen et al., 2018). The survey could be conducted over a period of two months, and the link can be sent out initially at the beginning of the study period and again one month into the survey period for the future primary study. To collect data, 500 respondents can be sent the questionnaire via Google Forms and social media. However, it is not guaranteed that the number of returnees will be.

Data Analysis

The data analysis technique for future research can be begun by editing the data collected from five hundred survey respondents. We can identify specific survey data points as incomplete, so future research can exclude them and proceed with analysing the remaining 500 survey data points. The pilot survey can be conducted with ten respondents. They must not be included in the further data analysis. The data analysis technique could be descriptive statistics, which examines the association between independent and dependent

variables. The first step in the data analysis can involve applying dimensionality reduction. Similarly, we used Principal Component Analysis (PCA) to find the subscales of each Principal Component (PC) (Connolly, 2007).

The future study can be calculated using mean, Standard Deviation (SD), and alpha values ($> .70$) to ensure the reliability and validity of the collected data. Our research instrument can be based on a five-point Likert-type scale, including strongly agree (1), agree (2), Neutral (3), disagree (4), and strongly disagree (5). The purpose of calculating mean values is to assess respondents' opinions and experiences regarding the roles of HLEI leaders' crisis preparedness, crisis experiences, and leaders' defined roles in crisis management in HLEI.

Researchers can further apply binary logistic regression to investigate the associations between leadership preparedness, crisis experiences, defined roles, and student enrolment in crises in HLEI in Nepal. We can also test Hypotheses 1, 2, and 3 to identify a systematic, objective way to draw conclusions and contribute to the accumulation of knowledge in crisis management regarding student enrolment in HLEI. This section also covers ANOVA to identify gender differences in leadership preparedness and crisis experiences and defines roles in managing student-enrolment crises in HLEI. We also perform a binary logistic regression to assess the association between the dependent and independent variables (Adhikari, 2022).

Discussion

The study addresses the student enrolment crisis in Nepalese higher education, identifying it as a multifaceted challenge linked to leadership preparedness, experience, and defined roles in crisis management. Findings suggest that institutions with proactive leadership and clear communication systems are better equipped to manage enrolment instability. Effective crisis management extends beyond administrative responses to include organisational, cultural, economic, and policy factors. The research emphasises that leadership preparedness is crucial to resilience during periods of declining enrolment,

with prior crisis experience and collaborative leadership significantly aiding crisis mitigation.

The implications underscore the need to enhance strategic leadership, communication systems, and crisis management frameworks to address enrolment declines. Recommendations also highlight the adoption of innovative recruitment strategies and the strengthening of institutional reputations. The study proposes a comprehensive crisis management framework that combines Leadership Theory and Systems Theory, advocating an integrated view of enrolment crises as systemic issues rather than isolated administrative concerns.

In practice, the findings encourage policymakers and university leaders to develop evidence-based policies to enhance the quality of higher education and autonomy while ensuring sustainable funding. Key strengths of the study include its interdisciplinary approach and contextual relevance to Nepal, while limitations involve a focus on urban educational contexts and reliance on quantitative methods.

Unexpectedly, the study reveals broader systemic issues beyond declining enrolment numbers, such as globalisation and funding limitations, that influence the crisis. Future research is suggested to investigate leadership strategies over time and explore the impact of digital transformation on enrolment. Overall, the study's conclusions emphasize a proactive, integrated strategy for managing crises in Nepalese HLEI through enhanced leadership and long-term planning.

Conclusion

Understanding crisis management in Nepal's higher education system highlights a significant student-enrollment crisis affecting both public and private institutions. The study recommends a quantitative methodology, collecting survey data from 500 educational leaders across key urban areas. It emphasizes a holistic approach to crisis management, advocating for a broader conceptual framework that includes economic, political, and social factors. Key challenges identified include insufficient leadership preparedness, a lack of

comprehensive crisis management strategies, and external pressures, including globalisation and domestic economic instability. The authors underscore the need for proactive leadership that promotes collaboration, effective communication, and innovative strategies to enhance student enrollment and institutional resilience. The study also argues for policy reforms aligned with national development goals to address the systemic issues within Nepal's HLEI sector.

Planning is crucial in HLEI crisis management as it helps address future issues by providing a holistic perspective on crises. Understanding the connections among economic, political, cultural, and regulatory factors is essential for effective crisis management. Governments must support academic education and research to ensure the nation's future, recognizing that this responsibility transcends political terms. A commitment to evidence-based education will foster a better understanding of HLEIs' complex societal roles, ensuring long-term benefits for the nation.

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