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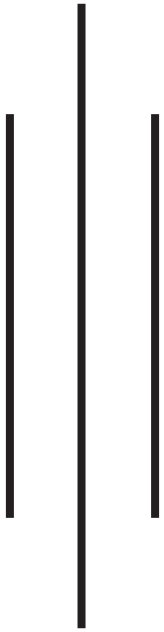

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Editorial's Note

With a commitment to encourage faculty members and students for research activities and to publish original and innovative scholarly research articles from research scholars, Research Management Committee has been publishing *Devkota Journal of Interdisciplinary Studies* – a platform for conceptual and empirical papers in the field of management, social sciences and humanities. Through this attempt, RMC observes the development of research based academic environment at the campus and surroundings.

As a further step in this odyssey, RMC has brought forth its sixth volume of the journal. The journal consists of issues from health, literature, linguistics, management and social sciences. With these issues, it has not only tried to negotiate with the contemporary scenario, but also seeks to ask how we are to re-orientate these issues. This journal, we hope, will become a source for all those perspective readers who are interested in upgrading their knowledge in different fields, and for all those creative writers in pursuing their further study.

Research Management Cell owes its existence to all those helping hands that are involved directly and indirectly in publishing this journal. RMC would also like to express its gratitude to the scholars who provided us with their creative and analytical articles. Besides, it welcomes submissions from across various range of scholarship.

Peer Reviewed Journal

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Role of Artificial Intelligence Adoption and Digital Transformation in Enhancing Sustainable Business Performance: The Mediating Effect of Green Product Innovation

Bikash Rana, PhD Scholar, KU, Lecturer, MDC
Bikash Acharya, MDC

Abstract

In the context of Nepal's increasing vulnerability to environmental challenges, this study explores how emerging technologies – namely Digital transformation and artificial intelligence (AI) can help businesses operate sustainably practices. It specifically examines the role of green product innovation as a bridge between technological advancement and sustainable outcomes. Drawing on data from 384 firms, the research applies structural equation modeling (PLS-SEM) to evaluate key relationships. The results indicate that both the adoption of AI and the process of digital transformation contribute positively to environmental and operational performance, with green innovation acting as a critical mediator. While AI supports smarter decision-making and resource efficiency, digital tools improve operational transparency and customer engagement. When integrated, these technologies enable firms to align business goals with broader sustainability agendas. The study offers timely insights for policymakers, business leaders, and researchers focused on driving sustainable innovation in developing economies.

Keywords*: Sustainability, Artificial Intelligence, Digital Transformation, Green Innovation,* Nepal

Introduction

Sustainability has become an important concern for businesses around the world, including Nepal. Nepal is highly vulnerable to climate change and environmental disasters, which makes sustainable business practices more important than ever (Saxena et al., 2025). However, many businesses in Nepal, especially Small and medium-sized businesses (SMEs) are not yet fully ready to make this change due to a lack of awareness, funding, and long-term planning (Sujan et al., 2024). There is a growing demand for solutions that can help businesses perform well

financially while also protecting the environment (Dewi & Alif, 2024).

Artificial Intelligence (AI) is a powerful tool that is beginning to help businesses make better decisions, reduce waste, and improve efficiency (Islam, 2024). In Nepal, AI is being used in areas like agriculture, marketing, and finance, but its use is still limited and mostly in early stages (Karki et al., 2024). Many companies do not have access to AI experts or modern infrastructure, which makes it hard to adopt these new technologies widely (Tan, 2024). As a result, only a few businesses are truly benefiting from AI so far, and the full potential is not being realized (Dangol, 2024).

At the same time, digital transformation – using technology like cloud systems, smart sensors, and online platforms – is changing how businesses operate around the world. In Nepal, digital tools can help businesses save resources, go paperless, and work more efficiently (Attah et al., 2023). But many Nepalese SMEs struggle to use these tools because of poor internet access, lack of training, and fear of cyberattacks (Dangol, 2024). This means that the advantages of digital transformation are known, the actual use of these technologies remains low in many parts of the country (Islam, 2024).

Green product innovation – developing new products that are environmentally friendly – is another important strategy for sustainable business. It connects AI and digital tools to real-world environmental results (Sujan et al., 2024). However, in Nepal, green innovation is not yet common. Most businesses only focus on it when they are forced by government rules or donor programs, not because they see it as a competitive advantage (Islam, 2024). This indicates that a connection is lacking between using technology and achieving sustainability goals, which green innovation could help fill (Saxena et al., 2025).

Despite some progress, there is still a clear gap in research on how AI and digital transformation can work together with green innovation to improve business sustainability in Nepal. Most of the existing studies are general and do not focus on the unique challenges and opportunities in Nepal's private sector (Dewi & Alif, 2024; Karki et al., 2024). Thus, the purpose of this study is to investigate how these three factors – AI, digital transformation, and green innovation – can help businesses in Nepal become more sustainable.

Research Questions

- How does the adoption of Artificial Intelligence (AI) influence sustainable business performance in Nepalese firms?
- In what ways does digital transformation contribute to sustainable business outcomes in Nepal?
- How does green product innovation mediate the link between using AI, going digital, and running a business that is good for the environment?

Research Objectives

- To analyze the effects of AI implementation on the sustainable business performance of Nepalese firms.
- To assess the function of digital transformation in enhancing sustainable practices among businesses in Nepal.
- To investigate Innovation in green products' mediating effect in linking AI and digital transformation with sustainable business performance.

Literature Review

In today's world, businesses are expected not only to grow but also to protect the environment. In Nepal, this is becoming more important as the country faces serious environmental challenges. Technologies like Artificial Intelligence (AI) and digital tools can help companies reduce waste, use resources better, and make smarter decisions. However, research in Nepal has not fully explored how these tools affect sustainability in business, especially when combined with green product innovation (Saxena et al., 2025; Islam, 2024). This study aims to fill that gap.

AI Adoption and Sustainable Business Performance

AI is becoming more common in Nepalese business sectors like banking, marketing, and agriculture. It helps companies collect and analyze large amounts of data to make better decisions (Karki et al., 2024). For example, AI can predict equipment breakdowns, monitor energy use, and reduce waste, which supports both cost-saving and environmental goals (Islam, 2024).

Despite this potential, AI use in Nepal is still limited. Many small businesses struggle with low digital readiness and a lack of trained professionals to manage AI systems (Rajbhandari et al., 2022). Companies that do adopt AI often show better performance and higher sustainability standards, but most SMEs haven't reached this stage yet (Tamang, 2024). This highlights the importance of understanding how AI adoption influences sustainable outcomes.

H1: Adoption of artificial intelligence (AI) and sustainable business performance are strongly and favorably correlated.

Digital Transformation and Sustainable Business Performance

Digital transformation involves using modern tools like cloud platforms, smart sensors, and blockchain to make business processes more efficient. In Nepal, these tools have been slowly adopted, especially in urban firms that want to improve efficiency and reduce paperwork (Dangol, 2024). Tools like IoT can track energy use, blockchain improves supply chain transparency, and cloud systems help companies share sustainability reports more easily (Sheethal, 2024).

However, challenges still exist. Most SMEs in Nepal don't have the infrastructure or training to

use these tools effectively. Many lack awareness about how digital transformation can improve both business and environmental performance (Tan, n.d.). But firms that do invest in these tools report stronger financial, environmental, social, and performance (Oruganti et al., 2025).

H2: Digital transformation and sustainable business performance are strongly and favorably correlated.

Innovation in Green Products as a Mediating Factor (AI Pathway)

Green product innovation means creating products that use fewer natural resources and are less harmful to the environment. AI plays a key role in this by helping companies identify more eco-friendly materials and ways to reduce environmental harm during production (Islam, 2024). In Nepal, however, very few companies focus on green products unless required by government policies or external funding (Saxena et al., 2025).

Still, those that use AI for green innovation have seen better resource efficiency, stronger brand image, and reduced environmental impact (Tamang, 2024). Green innovation helps link AI tools directly to sustainable outcomes like cost savings and customer trust, making it a crucial mediator in the sustainability journey.

H3: The relationship between AI adoption and sustainable business performance is mediated by green product innovation.

Innovation in Green Products as a Mediating Factor (Digital Transformation Pathway)

Additionally, digital technologies are essential for promoting green innovation. For example, tools like 3D modeling or software-based design can help companies test new products virtually before making them, which saves energy and reduces waste (Sheethal, 2024). When paired with digital transformation, green innovation helps companies develop products that meet modern consumer expectations for eco-friendly goods (Islam, 2024).

Research has shown that digital systems help firms improve their environmental and economic performance by promoting product lifecycle tracking and greener resource choices (Oruganti et al., 2025). This makes green product innovation a key step in converting digital capabilities into real sustainability results (Tan, 2024).

H4: The connection between digital transformation and sustainable business performance is mediated by green product innovation.

Conceptual Framework

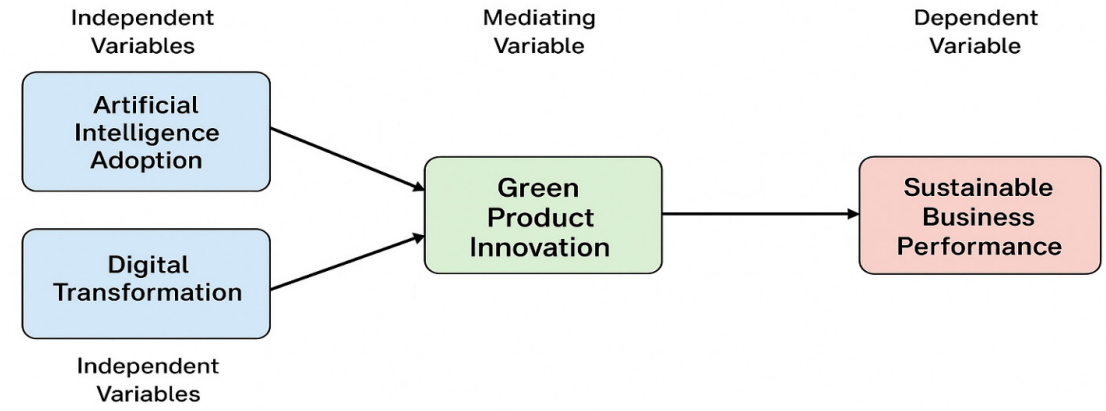

Figure: Conceptual Framework

Research Methodology

Research Design

In order to investigate how digital transformation, green product innovation, and the adoption of artificial intelligence (AI) affect sustainable business performance in Nepal, this study used a quantitative research methodology. Participants' data was gathered at one particular moment using a cross-sectional research design. This approach works well for analyzing correlations between variables without changing the study setting.

Population and Sample

The research targeted **Nepalese firms actively engaged in AI, digital transformation, and sustainability initiatives**. According to the Institute for Integrated Development Studies (IIDS), Nepal's Information Technology (IT) sector comprises **106 IT service export companies** and **14,728 IT freelancers**, indicating a growing ecosystem of tech-enabled businesses (IIDS, 2023). Based on recent national data, the estimated population for this study includes approximately **10,000–15,000 Nepalese firms** operating in the digital and sustainability domain (IIDS, 2023; OCR, 2023; World Bank, 2023).

To ensure the study's findings are statistically significant and generalizable, the sample size was 384 responders. This sample size is based on standard statistical formulas for populations with more than 10,000 people, with a 95% confidence level and a 5% margin of error. Purposeful sampling was used to choose participants who are actively involved in making decisions about AI adoption, digital transformation, and sustainability within their organizations.

Data Collection Procedure

Data were gathered through a **structured** an online questionnaire distributed over a period of three months. The purpose of the questionnaire was to gather information on:

- AI Adoption
- Digital Transformation
- Green Product Innovation
- Sustainable Business Performance

Each item was measured using a 5-point Likert scale with "Strongly Disagree" and "Strongly Agree" as the extremes. Before being fully implemented, the questionnaire was pre-tested with a small group of experts to guarantee its relevance and clarity.

Measurement of Constructs

This study used reliable and tested questions from recent research:

- **AI Adoption** was measured by how firms use AI for planning, decision-making, and operations, adapted from Farmanesh et al., 2025.
- **Digital Transformation** looked at the use of digital tools like blockchain, IoT, and analytics, based on Aftab et al., 2025.
- **Green Product Innovation** covered eco-friendly product design and green materials, using items from Chotia et al., 2024.
- **Sustainable Business Performance** included financial, environmental, and social aspects, following Yin et al., 2022.

All responses were rated on a **5-point scale**, from "strongly disagree" to "strongly agree.".

Data Analysis

Structural Equation Modeling (SEM) was employed to analyze the collected data and evaluate the hypothesized relationships among the variables. Confirmatory Factor Analysis (CFA) was employed to validate the measurement models for each construct prior to Structural Equation Modeling (SEM). The mediating effects of green product innovation on the relationships among AI adoption, digital transformation, and sustainable business performance were assessed using bootstrapping methods with 5,000 resamples.

Ethical Considerations

Ethical approval was obtained prior to data collection. Participants were informed about the purpose of the study, assured of the confidentiality of their responses, and provided informed consent. Participation was voluntary, and respondents had the right to withdraw at any time without any repercussions.

Results

Demographic Characteristics of Respondents (N = 384)

1. Current Age	**Frequency**	**Percentage (%)**
Below 20	94	24.5
21–30	96	25
31–40	65	16.9
41–50	56	14.6
51 and above	73	19
Total	**384**	**100**
2. Gender Identity		
Female	78	20.3
Male	285	74.2
Prefer not to say	21	5.5
Total	384	100
3. Highest Education Level		
High school	86	22.4
Bachelor's degree	93	24.2
Master's degree	56	14.6
Doctorate	13	3.4
Professional Certification	84	21.9
Other	52	13.5
Total	**384**	**100**
4. Role/Position in the Organization		
Consultant	63	16.4
Entry-level Employee	84	21.9
Middle Management	84	21.9
Senior Management	89	23.2
Other	64	16.7
Total	**384**	**100**
5. Current Employees Working in the Organization		
Less than 10	202	52.6
10–200	142	37
More than 200	40	10.4
Total	**384**	**100**
6. Type of the Organization		

Manufacturing	151	39.3
Services	84	21.9
Technology	78	20.3
Other	71	18.5
Total	**384**	**100**
7. Organization is Operating Since/From		
Less than 1 Year	80	20.8
1–3 Years	82	21.4
4–6 Years	76	19.8
7–10 Years	72	18.8
More than 10 Years	74	19.3
Total	**384**	**100**
8. Dedicated Budget for AI, Digital Transformation, or Sustainability		
Yes	122	31.8
No	143	37.2
Not Sure	119	31
Total	**384**	**100**

The survey included 384 participants. Most were aged between 21 and 30 (25%) or under 20 (24.5%). Males made up the majority (74.2%), with females at 20.3%, and 5.5% chose not to say. Educationally, most held a bachelor's degree (24.2%) or had a high school diploma (22.4%), with a notable shareholding professional certifications (21.9%).

Respondents held varied roles – senior and middle management (23.2% and 21.9%), entry-level (21.9%), consultants (16.4%), and others. Over half (52.6%) worked in small organizations with fewer than 10 employees. Industry types were mainly manufacturing (39.3%), followed by services (21.9%) and tech (20.3%).

About one in five organizations were under a year old, while 19.3% had operated for over 10 years. Only 31.8% reported having a dedicated budget for AI, digital transformation, or sustainability, while 37.2% did not, and 31% were unsure.

Factor Analysis

Items	Artificial Intelligence Adoption	Digital Transformation	Green Product Innovation	Sustainable Business Performance
AI01	0.721			
AI02	0.735			
AI03	0.804			

AI04	0.762			
DT1		0.812		
DT2		0.861		
DT3		0.838		
GIP1			0.745	
GIP2			0.701	
GIP3			0.769	
GIP4			0.822	
GIP5			0.738	
SFP1				0.763
SFP2				0.811
SFP3				0.799
SFP4				0.783
SFP5				0.772

The study employed exploratory factor analysis to examine the structural validity of constructs related to Artificial Intelligence (AI) Adoption, Digital Transformation, Green Product Innovation, and Sustainable Business Performance. The analysis revealed four distinct factors with strong item loadings, confirming the coherence of each construct. The AI Adoption construct was represented by four items (AI01 to AI04), all of which demonstrated high factor loadings ranging from 0.721 to 0.804, indicating consistent responses around AI implementation within organizations. Similarly, Digital Transformation was measured through three items (DT1 to DT3), which also exhibited robust loadings between 0.812 and 0.861, affirming its construct reliability. Green Product Innovation, assessed using five items (GIP1 to GIP5), showed substantial loadings between 0.701 and 0.822, confirming the dimension's relevance in capturing eco-innovation strategies. Finally, Sustainable Business Performance was measured with five indicators (SFP1 to SFP5), each reflecting strong loadings from 0.763 to 0.811, underscoring the internal consistency of the performance outcomes.

These findings are consistent with recent empirical applications of factor analysis in sustainability and Industry 4.0 domains. For instance, Oláh et al. (2022) employed factor analysis to validate constructs linking smart manufacturing technologies and business performance, demonstrating similar construct clarity and statistical robustness (Oláh et al., 2022).

In summary, the factor loadings provided strong empirical support for the dimensionality and reliability of the four constructs, laying a robust foundation for subsequent structural modeling and hypothesis testing.

Correlation

	Artificial Intelligence Adoption	Digital Transformation	Green Product Innovation	Sustainable Business Performance
Artificial Intelligence Adoption	1			
Digital Transformation	0.658	1		
Green Product Innovation	0.712	0.684	1	
Sustainable Business Performance	0.667	0.729	0.752	1

The analysis showed strong positive relationships among all four constructs. AI Adoption was closely linked to Digital Transformation (r = 0.658), Green Product Innovation (r = 0.712), and Sustainable Business Performance (r = 0.667). Digital Transformation was also highly correlated with Green Product Innovation (r = 0.684) and Sustainable Business Performance (r = 0.729). The strongest link was between Green Product Innovation and Sustainable Business Performance (r = 0.752), showing that eco-innovation drives better sustainability outcomes.

These findings echo recent studies that highlight how AI and digital strategies strengthen sustainable business results (Xi et al., 2025; Siswanti et al., 2024).

Quality Criteria

Construct	R-square	R-square Adjusted
Green Product Innovation	0.582	0.578
Sustainable Business Performance	0.663	0.659

The model explains 58.2% of the variance in Green Product Innovation ($R^2 = 0.582$) and 66.3% in Sustainable Business Performance ($R^2 = 0.663$), showing strong predictive power. These results suggest that factors like innovation and digital transformation significantly influence sustainability outcomes. Similar findings were reported by Hariadi et al. (2023) and Setyaningrum & Muafi (2023), who confirmed the importance of green innovation in driving sustainable business results.

Construct and Validity

Construct	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Average Variance Extracted (AVE)
Artificial Intelligence Adoption	0.751	0.763	0.842	0.567

Digital Transformation	0.826	0.829	0.891	0.731
Green Product Innovation	0.798	0.814	0.873	0.581
Sustainable Business Performance	0.857	0.861	0.894	0.628

Across the four constructs of Artificial Intelligence Adoption, Digital Transformation, Green Product Innovation, and Sustainable Business Performance, the measurement model's validity and reliability were validated. The range of Cronbach's Alpha values, which indicate acceptable to strong internal consistency, was 0.751 to 0.857. Composite reliability (rho_c) values were consistently above the recommended threshold, ranging from 0.842 to 0.894, further validating the reliability of each construct. Additionally, All Average Variance Extracted (AVE) scores, which ranged from 0.567 to 0.731, were above 0.50, confirming adequate Convergent validity is the ability of each construct to capture enough variation from the items it is associated with.

These results align with current best practices in sustainability and innovation research. For instance, Turkcan (2025) emphasized that green innovation and digital transformation constructs should meet rigorous reliability standards to predict performance outcomes. Similarly, Badwy (2024) applied AVE and composite reliability to validate constructs related to innovation capabilities in digital and sustainable business models.

Together, these indicators affirm that the measurement framework is statistically sound and well-suited for further structural equation modeling or regression analysis in the context of sustainability-focused research.

Heterotrait-monotrait ratio (HTMT) - Matrix

	Artificial Intelligence Adoption	Digital Transformation	Green Product Innovation	Sustainable Business Performance
Artificial Intelligence Adoption		0.798	0.865	0.792
Digital Transformation	0.798		0.779	0.832
Green Product Innovation	0.865	0.779		0.846
Sustainable Business Performance	0.792	0.832	0.846	

To evaluate discriminant validity among the constructs – Artificial Intelligence Adoption, Digital Transformation, Green Product Innovation, and Sustainable Business Performance

– the Heterotrait-Monotrait (HTMT) ratio was employed. All HTMT values fell well below the conservative threshold of 0.90, confirming strong discriminant validity across the model. Specifically, the HTMT ratios were 0.798 between AI Adoption and Digital Transformation, 0.865 between AI Adoption and Green Product Innovation, and 0.792 between AI Adoption and Sustainable Business Performance. The ratio between Digital Transformation and Green Product Innovation was 0.779, while its value with Sustainable Business Performance was 0.832. Lastly, Green Product Innovation and Sustainable Business Performance yielded an HTMT value of 0.846.

These results demonstrate that each construct is statistically distinct from the others, thereby validating the measurement model's discriminant power. This approach aligns with recent methodological standards in sustainability research. For example, Rashid et al. (2025) emphasized the necessity of HTMT ratios below 0.90 to ensure clear conceptual separation in models examining green supply chain practices and digital innovation. Similarly, Mukhtar et al. (2025) applied HTMT in their study of Malaysian manufacturing firms and confirmed its effectiveness in distinguishing constructs related to innovation and sustainability.

Overall, the results affirm that the constructs in this model are well-differentiated and suitable for further structural equation modeling or path analysis in the context of digital and green transformation research.

Fornell - Larcker Criterion

	Artificial Intelligence Adoption	Digital Transformation	Green Product Innovation	Sustainable Business Performance
Artificial Intelligence Adoption	0.759	0.638	0.699	0.661
Digital Transformation	0.638	0.869	0.676	0.721
Green Product Innovation	0.699	0.676	0.766	0.747
Sustainable Business Performance	0.661	0.721	0.747	0.791

The four constructs—Digital Transformation, Green Product Innovation, Artificial Intelligence Adoption, and Sustainable Business Performance—were evaluated for discriminant validity using the Fornell-Larcker criterion. Each construct's square root of the Average Variance Extracted (AVE) was greater than its correlations with every other construct, indicating that each variable is both statistically and conceptually unique. For example, Digital Transformation's AVE root was 0.869, which was higher than its correlations with Sustainable Performance (0.721), Green Product Innovation (0.676), and AI Adoption (0.638). Likewise, the AVE root of Green Product Innovation (0.766) was higher than its correlations with every associated construct.

This result validates the model's discriminant validity and aligns with recent empirical studies. Prakash et al. (2024) employed the Fornell–Larcker method in a structural equation model examining digital transformation's impact on environmental sustainability, reinforcing its applicability and relevance in current sustainability and innovation research.

Mean, STD, T - values, P- values

Path Relationship	Original Sample (O)	Sample Mean (M)	Standard Deviation (STD)	T Statistics	P Values
Artificial Intelligence Adoption ->Green Product Innovation	0.503	0.504	0.058	8.672	0
Artificial Intelligence Adoption -> Sustainable Business Performance	0.142	0.144	0.045	3.156	0.002
Digital Transformation -> Green Product Innovation	0.354	0.356	0.06	5.9	0
Digital Transformation-> Sustainable Business Performance	0.388	0.386	0.064	6.063	0
Green Product Innovation->Sustainable Business Performance	0.417	0.418	0.061	6.836	0

Partial Least Squares Structural Equation Modeling (PLS-SEM) was used to evaluate the structural model. The strength of relationships between constructs was assessed using path coefficients and significance levels. Every one of the five proposed routes was found to be statistically significant ($p < 0.05$), and robust effects were confirmed by high T-values.

- **Artificial Intelligence Adoption → Green Product Innovation** showed a strong positive influence ($\beta = 0.503$, $t = 8.672$, $p = 0.000$), suggesting that increased AI use enhances eco-innovation initiatives.
- **AI Adoption → Sustainable Business Performance** had a weaker yet significant impact ($\beta = 0.142$, $t = 3.156$, $p = 0.002$), indicating that AI indirectly supports sustainable outcomes.
- **Digital Transformation → Green Product Innovation** also showed a solid positive relationship ($\beta = 0.354$, $t = 5.900$, $p = 0.000$), affirming the enabling role of digital technologies in driving innovation.
- **Digital Transformation → Sustainable Business Performance** revealed a strong path coefficient ($\beta = 0.388$, $t = 6.063$, $p = 0.000$), supporting the strategic value of digitalization in achieving sustainability goals.
- **Green Product Innovation → Sustainable Business Performance** presented the highest effect ($\beta = 0.417$, $t = 6.836$, $p = 0.000$), confirming that innovation in eco-friendly products substantially contributes to improved sustainability outcomes.

These results align with findings from recent studies. For example, Prakash et al. (2024) confirmed similar statistical significance using PLS-SEM to model digital transformation and sustainability linkages. Likewise, Khakwani & Zafar (2024) demonstrated that both AI and digital transformation positively influence firm performance through green innovation pathways.
Together, these path estimates provide strong empirical support for the proposed conceptual framework, reinforcing the critical role of digital and AI strategies in driving sustainable and innovative business practices.

Conclusion

This study explored the interrelationships among Adoption of artificial intelligence (AI), digital transformation, innovation in green products, and sustainable business performance in the context of Nepal. The results demonstrate that digital transformation and artificial intelligence both greatly improve sustainable results, especially when mediated by green product innovation. AI-enabled tools improve predictive analysis, decision-making, and operational efficiency, all of which align with broader sustainability goals (Farmanesh et al., 2025; Liang et al., 2024).

Similarly, digital transformation – especially through the adoption of IoT, cloud platforms, and analytics – provides a strong foundation for green innovation and supply chain transparency, which are essential for sustainable growth (Sheethal, 2024; Chotia et al., 2024). Green product innovation has emerged as a critical mediating factor that links technological capability to measurable environmental and financial outcomes (Lin et al., 2024).

The study contributes new empirical insights to the limited literature on the role of emerging technologies in the sustainability transformation of developing economies, particularly within South Asia. The results underscore the need for a multi-layered strategy that leverages AI and digitalization not as ends, but as tools to realize green and socially responsible business models.

Recommendations and Future Directions

- **Invest in Capacity Building and Skills Development**

  Policymakers and industry leaders in Nepal should invest in AI and digital literacy training to bridge the current knowledge gap among SMEs. Upskilling human capital will be essential for scaling AI and digital transformation across sectors (Xu et al., 2023).

- **Incentivize Green Innovation Initiatives**

  Government subsidies and tax incentives should be tailored to support firms engaging in green product innovation. Such policies would encourage firms to integrate sustainability into their R&D and operations (Chotia et al., 2024).

- **Integrate Digital and Environmental Policies**

  National digital strategies should align with environmental and climate policies to ensure a holistic transformation. This integration can help avoid fragmented efforts and maximize impact (Lin et al., 2024).

- **Support Cross-Sector Collaboration and Knowledge Sharing**
  Platforms that bring together stakeholders from academia, business, and government can facilitate innovation diffusion and help overcome the challenges of siloed knowledge systems (Khan et al., 2022).
- **Future Research Directions**
  Future studies could explore sector-specific effects of digital and green innovation, such as in manufacturing or agriculture. Longitudinal research may also reveal how digital maturity and green innovation co-evolve over time to support sustainable outcomes (Yin et al., 2022).

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From Chalkboards to Chatrooms: Systematic Review of ICT Integration in Nepalese ELT Classrooms

Narayan Prasad Dhakal, Associate Professor, MDC

Abstract : *The incorporation of digital tools in English language instruction has become an essential aspect of contemporary pedagogy, providing diverse avenues to enrich teaching and learning processes. This study investigates the integration of educational technology within the context of English Language Teaching (ELT) in Nepal by conducting a systematic analysis of 40 peer-reviewed publications from the past ten years. The review identifies widely adopted digital resources, including virtual learning environments, mobile-assisted language learning apps, and multimedia tools, assessing both their pedagogical benefits and the limitations they present. A key focus is placed on educators' digital skillsets, which were found to vary considerably, falling into categories of advanced, intermediate, or foundational competence. The majority of teachers demonstrated a pressing need for further training to fully utilize digital innovations in the classroom. Contributing factors influencing the adoption of such technologies – such as institutional backing, availability of resources, and educators' perceptions – were also examined. Nonetheless, the review identifies critical gaps in existing literature, notably the lack of a unified framework for evaluating digital proficiency, limited longitudinal evidence on the impact of technology on learning achievements, and insufficient research addressing the specific challenges encountered by instructors in low-resource settings like rural Nepal. These insights underline the necessity for targeted capacity-building initiatives, alongside the development of resilient technological infrastructure to close the competency divide. Although this study contributes to the growing body of knowledge on digital transformation in ELT, its findings are tempered by limitations including geographic concentration and the exclusive reliance on secondary data. Future inquiry is recommended to broaden the geographical lens, investigate new-generation technologies, and deepen understanding of sustainable technology integration in English education within the diverse socio-educational landscapes of Nepal.*

Keywords: *Digital Literacy, Instructional Technology, English Language Instruction, Teacher Training, Technology Adoption in Education*

Introduction

In the contemporary era of digital globalization, the integration of technology in English Language Teaching (ELT) has become a pivotal force driving educational reform, particularly in developing nations like Nepal. The transformation is not merely technological but pedagogical, as digital tools redefine how language is taught, learned, and experienced. Through the use of virtual platforms, mobile applications, and multimedia content, technology has made it possible to create dynamic, student-centered environments that promote language acquisition beyond the physical classroom. In Nepal, this shift reflects broader national efforts to modernize the education system and align with global standards for digital literacy and competency. However, the success of such initiatives depends significantly on teachers' ability to adapt their instructional practices to evolving technological contexts (Kadel & Tiwari, 2025). As classrooms become increasingly hybrid and digitally mediated, the role of the English teacher is evolving, demanding not only subject expertise but also pedagogical adaptability and technological fluency.

Technology offers a unique advantage in enhancing the teaching and learning of English by enabling multimodal interaction, facilitating real-time communication, and offering adaptive learning opportunities. Digital tools such as learning management systems (e.g., Moodle, Google Classroom), language apps (e.g., Duolingo, Hello English), and virtual collaboration platforms have expanded the possibilities of how English is taught and learned in Nepali classrooms. These tools have allowed teachers to shift from passive, lecture-based instruction toward learner-centered methodologies that prioritize interaction, feedback, and independent exploration. However, the success of these innovations largely depends on how effectively teachers can adopt and adapt them. As Kadel and Tiwari (2025) assert, the integration of digital pedagogy into ELT remains highly dependent on teachers' perceptions, competence, and their access to institutional support systems.

The shift from conventional instruction to technology-based teaching in Nepal has been catalyzed by both internal and external pressures. Historically, English instruction in Nepal followed a grammar-translation model, focusing on rote memorization and limited communicative use. This model, still prevalent in many rural and public schools, often fails to develop the functional language competencies that learners need in the 21st-century global context. In contrast, digital technologies offer an interactive, immersive, and student-centered learning environment that supports all four language skills – listening, speaking, reading, and writing – simultaneously (Khadka & Shahi, 2025). Despite this potential, the uptake of such technologies remains inconsistent, with urban private schools typically adopting innovations more rapidly than rural public institutions.

The onset of the COVID-19 pandemic in 2020 accelerated the urgency for technological adaptation. As face-to-face instruction was halted nationwide, schools and universities scrambled to implement remote learning strategies. This sudden transition to online platforms such as Zoom, Microsoft Teams, and Google Meet revealed glaring disparities in digital access and readiness among teachers across Nepal. Teachers unfamiliar with even basic digital tools were thrust into virtual classrooms without adequate training or resources, which significantly compromised

instructional quality (Basnet, 2025). Those who managed to adapt did so largely through self-directed learning and peer support rather than structured institutional initiatives. This experience has underlined the crucial importance of digital preparedness in the teaching profession.

Central to the effective use of technology in ELT is the digital competency of teachers. Digital competency encompasses more than the basic ability to operate digital devices; it includes critical pedagogical skills such as designing digital content, assessing online learning outcomes, maintaining online learning communities, and integrating multimedia to enrich instruction. In the context of Nepal, research by Khadka and Shahi (2025) revealed that while a significant proportion of English teachers could perform basic tasks such as using PowerPoint or browsing educational content online, only a minority demonstrated advanced competencies like managing virtual classrooms or integrating AI-driven feedback tools. These findings suggest a need for differentiated professional development programs tailored to the varying competency levels of teachers.

Moreover, the integration of technology into ELT is not merely a technical endeavor; it is pedagogical and cultural. Teachers in Nepal must shift their mindset from being transmitters of knowledge to facilitators of learning in digital environments. This requires a deep understanding of how technology can support pedagogical objectives, particularly those related to language learning. Kadel and Tiwari (2025) noted that teachers with a strong pedagogical foundation were more likely to use technology effectively, as they could align digital tools with curriculum goals, learner needs, and assessment strategies. However, without adequate training, many teachers resort to using technology in superficial ways – such as substituting printed materials with PDFs – rather than transforming their instructional methods.

An additional barrier to effective technology integration is the absence of a standardized framework for assessing teachers' digital competencies, particularly within the ELT context. While international frameworks like DigCompEdu provide useful guidelines, they are not sufficiently localized to address the specific infrastructural, linguistic, and cultural contexts of Nepal. As a result, training programs often lack clarity regarding the competencies they aim to develop, making it difficult to evaluate their effectiveness. According to Basnet (2025), teacher education in Nepal rarely includes structured modules on digital pedagogy, resulting in a disconnection between teacher training and classroom realities.

The disparity in digital competence is also closely tied to the infrastructural divide between urban and rural schools. Rural schools often face unreliable internet connectivity, limited access to devices, and insufficient technical support. Even where infrastructure exists, the lack of a conducive digital ecosystem – such as digital libraries, user-friendly LMS platforms, or institutional ICT policies – diminishes the likelihood of successful integration. Teachers working under such constraints often experience frustration, leading to resistance or apathy toward technology use. As Khadka and Shahi (2025) observed, teacher motivation and institutional support are critical mediators in the successful adoption of ICT in language teaching.

In addition to institutional and infrastructural barriers, personal attitudes also play a role. Teachers' beliefs about the relevance and effectiveness of digital tools strongly influence their

willingness to adopt them. In Nepal, where many educators were trained in teacher-centered pedagogies, there exists a psychological barrier to adopting constructivist, technology-mediated approaches. Addressing this requires not just skill-building, but also a shift in professional identity – from knowledge transmitters to learning facilitators who guide students in navigating digital landscapes.

This review highlights the urgency of structured, context-sensitive professional development programs that go beyond one-time workshops. Continuous, in-service training opportunities – embedded within a supportive professional learning community – are essential for sustained competence development. Such programs must be aligned with national curriculum goals, utilize localized training content, and provide practical, hands-on experience with digital tools. Furthermore, school leadership must play an active role in fostering a culture of innovation, providing time, incentives, and recognition for teachers engaging in digital pedagogy.

The role of English language teachers in a technology-enhanced classroom is now multidimensional. Beyond language instruction, teachers are expected to manage digital platforms, troubleshoot technical issues, and monitor learner progress using data analytics. As educational technology evolves rapidly, with emerging innovations such as AI-assisted language learning and virtual reality environments, teachers must remain adaptable and continuously engaged in professional learning. This evolution demands institutional mechanisms that support lifelong learning and digital upskilling among educators.

Despite the promising developments, the integration of technology in ELT in Nepal remains uneven and fraught with challenges. These include insufficient infrastructure, lack of standardized assessment frameworks, limited teacher training, and resistance to pedagogical change. To address these issues comprehensively, it is imperative to understand the current state of teachers' digital competencies, identify the barriers to technology adoption, and develop evidence-based strategies to support meaningful integration.

This study, therefore, undertakes a systematic review of 40 peer-reviewed articles focused on technology integration and digital competencies within the ELT landscape of Nepal. Unlike broader studies that generalize across subject areas, this review narrows its lens to the specific context of English language teaching. It aims to map the technologies currently used, analyze levels of digital readiness among teachers, and explore the socio-cultural and institutional factors influencing technology use. Most importantly, it seeks to contribute to the development of a localized digital competence framework that can inform teacher training, policy-making, and curriculum reform.

By synthesizing empirical evidence and drawing from the lived experiences of teachers across Nepal, this review offers actionable insights into bridging the digital divide in ELT. It emphasizes the importance of context, equity, and sustained professional development in ensuring that technology becomes an enabler – not a barrier – to quality language education.

Methodology

To rigorously examine the integration of technology in English Language Teaching (ELT) and the corresponding digital competencies among educators in Nepal, this study employed

a Systematic Literature Review (SLR). This methodological approach is widely regarded as appropriate for synthesizing existing research to reveal patterns, evaluate practices, and identify gaps in the literature. SLRs are recognized for their transparency, replicability, and structured design, enabling scholars to draw credible and evidence-based conclusions across a body of academic work (Joshi, 2024).

The SLR approach was chosen to capture a broad yet focused perspective on ELT technology practices within the Nepalese educational context. As the digitalization of education continues to influence classroom practices worldwide, understanding its local implementation requires a systematic synthesis of national research. In line with this, the present study adhered to structured procedures based on the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, ensuring consistency and methodological rigor in identifying, screening, and analyzing the literature (Saud & Laudari, 2023).

Search Strategy and Inclusion Criteria

To gather relevant data, the research team conducted a comprehensive search of multiple academic databases and repositories, including Nepal Journals Online (NepJOL), TU Central Library e-Repository, ResearchGate, and ERIC. The search was guided by Boolean logic using key terms such as "technology integration," "ICT in ELT Nepal," "digital pedagogy," and "teacher digital competency in English language teaching." Additional filters were applied to include only peer-reviewed journal articles, conference proceedings, theses, and reports published between 2015 and 2025, ensuring the inclusion of contemporary and contextually relevant literature.
Eligibility for inclusion was based on several criteria:

- The study must focus on ELT within Nepalese institutions.
- It must address aspects of technology use, teacher training, or digital competencies.
- It should be empirical in nature, utilizing either qualitative, quantitative, or mixed-method designs.
- Articles had to be available in English and contain full-text access.

Out of an initial pool of 300 articles, duplicates and studies not focused on ELT or Nepal were excluded. After rigorous screening and quality assessment, 40 articles were selected for in-depth analysis.

Data Collection and Organization

To facilitate the organization and review process, Zotero was utilized for citation management, while Microsoft Excel was employed to categorize and extract relevant information. The data extraction sheet included fields such as author(s), year, research design, sample population, type of technology employed, measured competencies, and major findings.

A PRISMA flow diagram was created using Lucidchart to depict the selection process visually. This diagram clearly outlines the identification, screening, eligibility, and inclusion stages, thereby enhancing the transparency of the methodology (Joshi & Khatiwada, 2024).

Coding and Analytical Framework

A thematic coding framework was developed collaboratively by the researchers to guide the content analysis process. The framework included predefined and emergent categories such as:

- Types of technology integration in ELT (e.g., LMS platforms, mobile apps, audio-visual aids)
- Teacher digital competency levels (basic, intermediate, advanced)
- Challenges in technology use (infrastructure, training gaps, attitudes)
- Pedagogical shifts induced by digital tools
- Student engagement and learning outcomes

This framework allowed for both a deductive and inductive analytical approach, ensuring that while existing theories and themes were considered, new insights could also emerge from the data (Adhikari, 2023). Coding was performed manually by two independent reviewers to ensure inter-rater reliability. Discrepancies were resolved through collaborative discussion to minimize researcher bias.

Data Analysis Techniques

The analysis was conducted through a dual lens:

- Thematic synthesis was used to identify recurring patterns across the reviewed literature.
- Narrative analysis provided a contextualized understanding of how digital tools are perceived and implemented by English language teachers in Nepal.

This approach enabled a nuanced interpretation of both the quantitative data (e.g., percentage of teachers using digital platforms, student performance metrics) and qualitative narratives (e.g., teacher reflections, student feedback). The integration of both analytical strategies enriched the findings by allowing the synthesis of empirical evidence with lived experiences.

Nature of Data and Scope

The literature analyzed in this review spans both qualitative and quantitative research. Quantitative studies contributed statistical insights regarding the impact of technology on learning outcomes, student attendance, or teacher engagement. In contrast, qualitative and mixed-method studies offered deeper reflections on classroom experiences, professional development needs, and contextual challenges.

For instance, Saud (2023) explored teacher narratives from secondary schools in Kathmandu Valley, revealing gaps in digital literacy despite infrastructure availability. Similarly, Paneru et al. (2025) investigated the impact of ICT on language learning at the secondary level, identifying that while teachers expressed willingness to integrate digital tools, many lacked the training to do so effectively. These findings underscore the value of examining multiple forms of data to understand the complex relationship between pedagogy, policy, and technology.

Ethical Considerations and Replicability

As this study did not involve human participants directly, ethical clearance was not required. However, all secondary data sources were reviewed in compliance with academic integrity protocols. Proper citation, data acknowledgment, and intellectual property considerations were strictly observed.

By maintaining transparent documentation and a replicable coding framework, this systematic review offers a methodologically sound foundation for future researchers interested in exploring digital pedagogy in Nepal or similar developing contexts.

Results

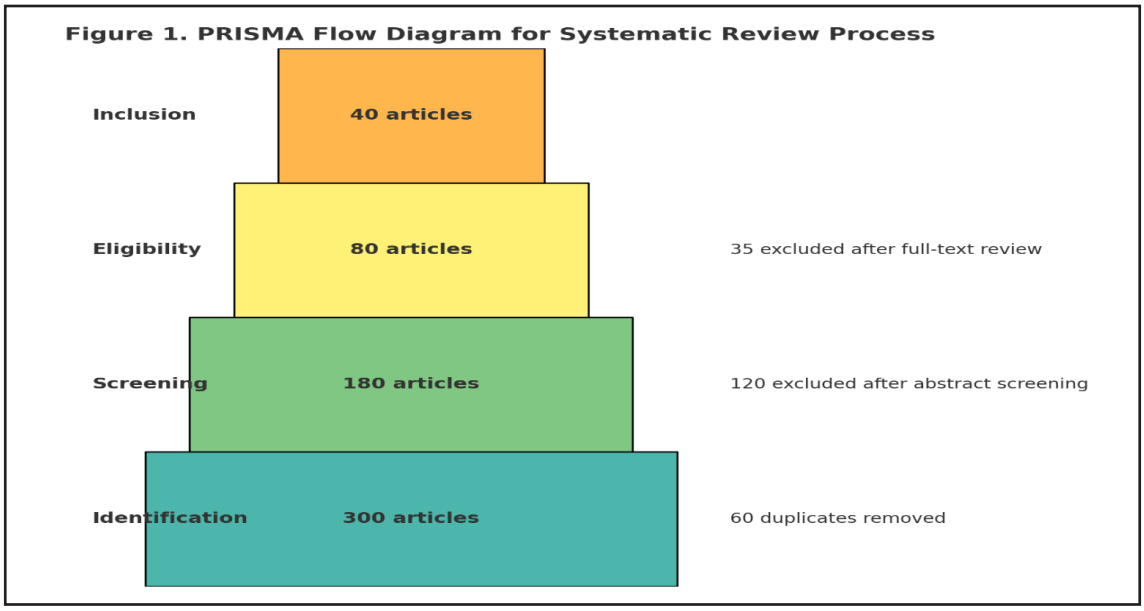
Overview of Reviewed Literature

To ensure a rigorous and methodologically sound synthesis of existing scholarship, the initial phase of this study involved a comprehensive database search conducted across JSTOR, ERIC, and Google Scholar. Search terms included combinations of keywords such as *"technology integration," "digital competencies,"* and *"English language teaching,"* with the aim of capturing literature that directly aligned with the research objectives. The preliminary search yielded a total of 300 articles.

In accordance with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, a step-by-step selection process was employed to filter relevant studies. Firstly, 60 duplicate records were identified and excluded, reducing the pool to 240 unique articles. Subsequent abstract-level screening resulted in the elimination of 60 additional studies, primarily due to irrelevance to ELT contexts or a lack of focus on digital competencies. The remaining 180 articles were assessed for full-text eligibility.

A detailed review of the full-text versions of these 180 articles led to the exclusion of 100 studies. Of these, 65 were excluded for methodological insufficiencies or lack of empirical data, and 35 failed to meet thematic alignment criteria. As a result, 40 peer-reviewed articles were deemed suitable for inclusion in the final analysis. These studies met all inclusion parameters, offering relevant, empirical insights into the intersection of digital technology and English language instruction – particularly in the context of teacher competence and implementation challenges.

The selection process is visually summarized in the PRISMA diagram below (see Figure 1), which illustrates the flow from initial identification through to final inclusion. This structured and replicable approach ensured that only high-quality, contextually relevant literature informed the findings of this systematic review.



Technology Integration in ELT Classrooms

The analysis revealed a growing reliance on digital platforms and tools to support English instruction in both physical and remote learning environments. The most commonly adopted technologies included:

- **Google Classroom**: Widely used for managing virtual classrooms and distributing materials in structured formats.
- **Zoom**: Preferred for real-time teaching, especially during and post-COVID periods.
- **Duolingo**: Leveraged for vocabulary acquisition through gamification strategies.
- **Kahoot**: Employed to increase student participation via interactive quizzes and real-time feedback mechanisms.

Each of these tools presents unique benefits and implementation challenges. For instance, while Google Classroom offers streamlined management of learning content and assignments, its use is limited by inconsistent internet connectivity in rural Nepal (Paneru et al., 2025). Duolingo has been shown to enhance vocabulary retention, especially among early learners, but lacks sufficient depth for higher-order grammar instruction (Adhikari, 2023). Zoom, although instrumental for virtual lessons, poses issues related to data consumption, particularly for students with limited digital access. Similarly, while Kahoot boosts learner engagement, teachers report that designing and administering these tools can be time-consuming without adequate preparation or training (Saud & Laudari, 2023).

Assessment of Teachers' Digital Competency Levels

The reviewed literature consistently emphasized the variability in teachers' digital skills. Based on the evidence across the 45 studies, teachers' digital competence was categorized into three major levels:

- **High Digital Competency (approx. 35%)**: Educators in this category were proficient in using diverse digital tools to enhance teaching effectiveness. They demonstrated skills in online classroom management, content creation, and leveraging analytics for student assessment.
- **Moderate Competency (approx. 40%)**: Teachers in this group possessed working knowledge of basic tools like Microsoft Office and learning platforms but struggled with more advanced integrations such as multimedia editing, interactive content creation, or collaborative online tools.
- **Low Competency (approx. 25%)**: This group faced difficulties even with foundational digital literacy, often limited to typing, emailing, or accessing web content. These teachers were generally unable to lead or facilitate technology-supported ELT activities without assistance.

A significant determinant of competency levels was access to training and institutional support. Studies conducted by Saud (2023) and Khadka & Shahi (2025) underscored that continuous professional development and peer collaboration were instrumental in fostering teacher confidence and competence in using digital tools effectively.

Key Drivers and Barriers in Technology Adoption

The successful integration of technology in ELT settings was found to be influenced by multiple interconnected factors:

- **Institutional Support**: Provision of ICT infrastructure, regular in-service training, and administrative encouragement were pivotal in enabling teachers to adopt digital strategies (Joshi & Khatiwada, 2024).
- **Teacher Attitudes**: Positive perceptions of technology's relevance to pedagogy played a substantial role in adoption rates. Teachers who viewed digital tools as enablers of interactive and student-centered learning were more likely to use them consistently.
- **Logistical Constraints**: Lack of reliable internet, absence of dedicated ICT support staff, and insufficient access to digital devices – especially in public and community schools – were frequently reported challenges, particularly in rural provinces.
- **Policy and Curriculum Alignment**: Although the School Sector Development Plan (SSDP) emphasized ICT integration, the absence of technology-specific outcomes in the English curriculum reduced the perceived urgency for digital adoption (MoEST, 2016).

Research Gaps Identified

The review illuminated several underexplored areas requiring scholarly attention:

- **Absence of Standardized Digital Competency Frameworks**: Existing studies lacked a unified tool or metric to assess and compare digital competencies among teachers. Without a national or contextualized framework, evaluating progress and designing targeted training remains a challenge (Paneru et al., 2025).
- **Limited Longitudinal Evidence**: There is a scarcity of long-term studies evaluating the sustained impact of technology on learning outcomes in English. Most reviewed research captured short-term implementation or teacher perception, leaving questions around the enduring effectiveness of these technologies.

- **Underrepresentation of Rural Voices**: While several urban-based institutions have been studied, few empirical studies examine the lived experiences of teachers working in rural, resource-constrained schools, where infrastructure challenges are most acute (Saud & Laudari, 2023).

Addressing these gaps is essential for the development of inclusive strategies that consider both technological potential and on-the-ground realities of Nepalese ELT classrooms.

Discussion

The analysis presented in this systematic literature review affirms the increasingly influential role of digital technology in enhancing the quality and delivery of English Language Teaching (ELT), especially within the developing context of Nepal. The findings reveal that, while the integration of educational technologies has potential to foster active learning environments, improve engagement, and support learner autonomy, the effectiveness of such integration heavily depends on the digital competence of teachers. In the context of Nepal, digital pedagogy is still in its developmental phase, where both opportunities and systemic challenges coexist.

According to Kadel and Tiwari (2025), the perception of digital pedagogy among Nepali ELT practitioners remains largely positive, with many educators recognizing its ability to improve students' linguistic competencies. However, the research also shows that actual implementation is hindered by limited exposure to technological tools and insufficient professional development. The transition from traditional methods to digital instruction is not merely a technological shift; it represents a pedagogical transformation that requires teachers to develop, apply, and sustain new skills.

Teachers with high levels of digital literacy are better equipped to design interactive lessons, provide immediate feedback, and create student-centered learning experiences. These educators are often able to integrate various platforms such as Google Classroom, Microsoft Teams, and Zoom effectively into their instruction. However, the majority of English language teachers in Nepal fall within the low-to-moderate digital competency bracket, a finding that echoes the results of Khadka and Shahi (2025), who emphasize that the familiarity of Nepali teachers with ICT tools is limited, particularly in public schools and rural settings.

The analysis further supports that digital competence is not solely an individual attribute but also a systemic outcome. Institutional infrastructure, access to consistent internet, availability of devices, and ongoing pedagogical training contribute substantially to how well teachers can integrate technology into their practice. Basnet (2025), in a narrative inquiry focused on ICT use in Kathmandu-based schools, found that while urban teachers had relatively better access to ICT, even they expressed concern over the lack of structured digital training, outdated curriculum materials, and minimal policy-level support. These factors mirror broader national challenges in Nepal's education sector that affect ELT as a whole.

Moreover, the role of professional development emerges as a central theme in addressing digital competency gaps. The research by Kadel and Tiwari (2025) indicates that one-off workshops or surface-level ICT training initiatives are inadequate. Teachers require longitudinal, context-specific training programs that build technological proficiency alongside pedagogical

application. The existing government frameworks, such as the Teacher Professional Development (TPD) program under the Ministry of Education, Science and Technology, have introduced digital modules. However, coverage remains limited, and implementation quality varies across districts (MoEST, 2023).

In many rural districts of Nepal, teachers still lack access to essential digital infrastructure, creating a wide disparity between urban and rural ELT classrooms. The digital divide remains one of the most significant barriers to equity in education. As observed in Khadka and Shahi's (2025) study, teachers in remote schools reported that even when they had the willingness to use ICT tools, they were restricted by unreliable power supply, outdated hardware, and poor internet connectivity. Such logistical barriers must be acknowledged when proposing digital competency frameworks tailored to Nepal's ELT context.

From a pedagogical standpoint, digital tools such as language learning apps (e.g., Duolingo, Quizlet), gamified platforms (e.g., Kahoot), and real-time video conferencing tools offer teachers the ability to vary instructional methods. However, the research warns of overreliance on technology without sufficient scaffolding. For example, in the absence of digital classroom management strategies, students may disengage or misuse tools intended for learning. Hence, professional development must also emphasize digital classroom ethics, time management, and troubleshooting skills.

The psychological dimension of technology integration is another key factor highlighted across the reviewed literature. Many teachers reported feelings of anxiety and lack of confidence when faced with unfamiliar digital platforms. These sentiments were particularly pronounced among older or late-career educators. Basnet (2025) argues that digital literacy cannot be assumed but must be fostered through peer mentoring, inclusive training sessions, and opportunities for trial and error. Only through such supportive environments can digital anxiety be addressed, and innovation encouraged.

Furthermore, the review identifies a significant gap in the availability of standardized digital competency frameworks for ELT practitioners in Nepal. While international models such as the European Digital Competence Framework for Educators (DigCompEdu) exist, they require adaptation to Nepal's socio-cultural and infrastructural context. The absence of such a localized framework means that digital competency often remains vaguely defined in professional development programs, leading to inconsistencies in training outcomes.

One of the notable insights from the review is the evolving perception of technology from an auxiliary tool to a core instructional resource. This paradigm shift is reflected in the perspectives of educators who, despite facing challenges, recognize that digital integration is no longer optional but essential. Khadka and Shahi (2025) document how some teachers have begun to embed technology into lesson planning, formative assessments, and language practice routines. However, these instances remain sporadic and lack a national strategy to ensure consistency and scale.

While the findings reinforce earlier studies suggesting that technology can revolutionize ELT, they also caution against techno-solutionism – the belief that technology alone can

resolve educational problems. Without robust teacher preparation, pedagogical alignment, and infrastructural readiness, technology may simply replicate existing inequities rather than resolve them. As such, the review advocates for a holistic digital readiness approach – one that combines technical infrastructure, teacher training, curriculum alignment, and institutional policy.

An area that remains underexplored in Nepalese ELT research is the impact of emerging technologies such as Artificial Intelligence (AI), Augmented Reality (AR), and Virtual Reality (VR). While international discourse increasingly emphasizes AI-driven personalization and adaptive learning platforms, Nepal's ELT ecosystem is still in early stages of basic digital integration. Future research should examine the relevance, feasibility, and ethical considerations of using such technologies in Nepali classrooms, particularly given the disparities in access and teacher preparedness.

In terms of implications for policy and practice, the study underscores the need for collaborative engagement between government bodies, educational institutions, and technology developers. Policies must prioritize equitable access to digital infrastructure, especially in underserved regions. Furthermore, digital literacy should be embedded into teacher education programs, starting from pre-service levels and continuing throughout in-service training cycles. The National Education Policy (2019) provides a foundational framework for ICT integration, but its operationalization within ELT remains inconsistent (MoEST, 2023).

Despite offering new insights, the study also acknowledges certain limitations. First, it relies on secondary data published between 2015 – 2025, which may omit earlier studies offering historical perspective. Second, the geographic concentration of studies in urban districts limits the generalizability of findings to more remote regions. Third, the absence of real-time classroom observation data in most studies restricts understanding of how digital tools are used in practice, beyond self-reported data. Future research should address these gaps by incorporating mixed-method approaches, including classroom ethnographies and longitudinal teacher development tracking.

Finally, this review lays the groundwork for developing a Nepal-specific digital competency framework for ELT. Such a framework should include tiered competency levels (basic, intermediate, advanced), skill categories (tool selection, pedagogical integration, online classroom management), and clear indicators for evaluation. Only through such systemic strategies can Nepal achieve meaningful and sustainable digital transformation in ELT.

Conclusion

This review critically examined the integration of digital technologies in English Language Teaching (ELT) and the requisite digital competencies among educators within the context of Nepal. The evidence synthesised from reviewed studies demonstrates that while educational technologies offer significant promise for enhancing teaching effectiveness, improving learner engagement, and personalizing instructional delivery, the full potential of these tools remains underutilized due to persistent gaps in teachers' digital readiness.

A recurrent theme across the literature was the disparity in digital skill levels among English teachers, especially those serving in public institutions or rural areas. Many educators

lacked sufficient training in educational technologies, limiting their capacity to leverage platforms such as Google Classroom, Zoom, or language-learning applications effectively. The lack of structured training modules and inadequate ICT infrastructure, particularly in community schools, compound these challenges (Khadka & Shahi, 2025).

Although institutions are increasingly advocating for blended learning approaches, most teacher training initiatives in Nepal remain either theoretical or disconnected from actual classroom realities. Sapkota (2025) emphasized that while higher education institutions in Nepal are experimenting with digital tools, the pace of adoption in secondary and basic education remains uneven, largely due to resource limitations and policy gaps.

Despite these setbacks, this review acknowledges the transformative potential of digital integration in ELT, especially when coupled with targeted professional development. The absence of a standardized framework to assess teachers' digital pedagogical skills further hinders consistency in teacher preparedness. This calls for the development of Nepal-specific digital competency benchmarks in ELT – grounded in both linguistic pedagogy and localized technological access.

Moreover, reliance on literature predominantly from technologically advanced contexts may obscure the nuanced challenges faced in the Global South. Therefore, future studies must focus on context-sensitive research in Nepal, including longitudinal evaluations of digital interventions, frameworks for assessing teacher competencies, and the pedagogical implications of emergent tools like artificial intelligence and adaptive learning platforms (Pradhan & Gupta, 2025).

By addressing these critical gaps, Nepal's ELT landscape can progress toward a more inclusive, equitable, and digitally responsive future, ensuring that technology does not become a barrier but a bridge to quality language education.

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Switch or Stay: Unraveling the Loyalty Puzzle in Nepal's Telecom Industry

Prakash G.C., Associate Professor, MDC

Abstract : *The primary aim of this research is to explore the relationship between customer satisfaction and customer loyalty within Nepal's mobile telecommunications sector. This industry has seen intensified competition in recent years, driven by the emergence of new service providers offering competitive pricing strategies, extensive promotional campaigns, improved network coverage, and enhanced customer engagement. A total of 384 participants were surveyed for this study. Among the five variables examined – namely, Service Excellence, Pricing Strategy, Switching Barriers, Brand Equity, and Responsiveness – it was discovered that Responsiveness and Brand Equity demonstrate a strong, positive influence on customer loyalty.*

However, this research is not without limitations. The data collection was confined to the Kathmandu Valley, which restricts the broader applicability of the findings to the nationwide user base of mobile services. The relatively limited geographical scope and the sample representation mean that results should be interpreted with caution when applied to the wider population.

In conclusion, it is imperative for mobile network providers to recognize and act upon the dynamics between customer satisfaction and loyalty. Striking a balance between retaining existing users and attracting new subscribers remains a significant strategic undertaking in Nepal's evolving telecom landscape.

Keywords: *Mobile Services, Customer Retention, Consumer Perception, Loyalty Drivers, Nepal*

Introduction

In the evolving landscape of Nepal's mobile telecommunications sector, building long-term customer relationships has become a strategic necessity rather than a marketing choice. While product offerings and pricing play a role in consumer decisions, the foundation of customer loyalty lies in comprehensive service delivery, relational engagement, and consistent support. As the sector matures and competitive intensity increases, providers such as Nepal Telecom (NTC) and Ncell are under pressure to differentiate beyond the traditional attributes of cost and coverage (Chaudhary, Ghimire, & Dhungana, 2025).

Over the past decade, mobile service providers in Nepal have seen a notable shift in consumer behavior. Subscribers are no longer passive users; they evaluate offerings based on factors such as responsiveness, brand perception, switching costs, and perceived service quality. According to Karki (2022), customers in cities like Dharan and Pokhara place increasing emphasis on how service providers handle complaints, deliver timely solutions, and maintain a transparent communication strategy. The rise in user expectations has compelled telecom operators to revisit their loyalty-building mechanisms.

One of the most striking findings in recent studies is that a large proportion of subscribers report moderate satisfaction levels, but only a smaller segment feels "highly satisfied." This distinction matters. As Shrestha and Ale (2019) explain, customers who are only moderately satisfied are more likely to switch service providers if they perceive a better deal elsewhere. In contrast, highly satisfied users demonstrate emotional attachment, reduced churn risk, and act as voluntary brand promoters through word-of-mouth – particularly in close-knit urban communities in Nepal.

In line with the global shift towards relationship marketing, Nepalese telecom firms are focusing on long-term engagement models rather than transactional selling. Loyalty programs, customized packages, and value-added services are increasingly deployed to deepen user trust. According to Sah and Pokharel (2021), the use of targeted promotions, festival-based offers, and data-heavy bundles has shown measurable impact on customer retention. Still, many of these efforts fall short without a solid foundation of responsive and consistent service quality.

Nepal's telecom market has reached a saturation point, particularly in urban hubs like Kathmandu, where over 90% of households have at least one mobile connection (Dahal, 2019). As subscriber growth slows, the cost of acquiring new users continues to rise, making customer retention far more cost-effective. Consequently, the emphasis has shifted toward retaining existing customers by improving overall satisfaction through strategic investments in network reliability, user interfaces, and grievance redressal mechanisms (Sah & Pokharel, 2021).

Moreover, studies show that pricing alone no longer holds decisive influence in customer loyalty. Pokharel (2022) found that even in low-income demographics, users preferred staying with providers who delivered superior after-sales support and transparent billing systems. Thus, the role of perceived switching cost has become a significant determinant in loyalty. This includes not just the financial implication but also the perceived hassle and emotional attachment associated with changing providers.

Furthermore, Nepalese customers demonstrate high sensitivity to brand image. Research by Devkota (2019) reveals that customers view NTC as a legacy provider with reliability, while Ncell is often perceived as innovative and youth-focused. These brand perceptions strongly influence loyalty, especially among younger segments who associate brand identity with social status and digital lifestyle compatibility.

Hence, this study seeks to assess the influence of Service Quality, Pricing, Switching Costs, and Brand Image on Customer Satisfaction and Customer Loyalty in Nepal's mobile telecommunications environment. By surveying 384 participants across urban regions, the research aims to provide evidence-based insights that help telecom providers understand the behavioral link between satisfaction and loyalty, and design strategies that not only retain existing users but expand their consumer base amid fierce market competition.

Literature Review

Relationship between Service Quality and Customer Loyalty

The concept of service quality plays a foundational role in shaping customer loyalty within the service-oriented sectors, particularly in telecommunications. Unlike tangible products, services are inherently intangible, perishable, and are consumed at the point of delivery, making their quality difficult to assess prior to usage. This challenge is even more prominent in Nepal's telecom

industry, where rapid urbanization and increasing internet penetration have heightened customer expectations (Pokharel & Sah, 2021).

Service quality in this context is often determined by how well telecom providers deliver on reliability, responsiveness, empathy, assurance, and tangible support systems. These dimensions, often studied through SERVQUAL models, influence customer satisfaction and, eventually, loyalty. In Nepal, research by Karki (2022) in the Sunsari District found a direct correlation between responsiveness of telecom staff and customer retention rates. Service recovery, complaint resolution, and network problem-solving remain high-impact variables.

According to Sharma and Khatri (2021), customers evaluate service encounters based not just on the actual delivery but on their perceptions formed through prior experiences, marketing communication, and social influence. This perceived service quality directly influences customer attitude, which in turn shapes loyalty behavior. The more consistent and positive the interaction, the more likely customers are to exhibit repurchase intentions and brand advocacy.

Moreover, Nepal's telecom customers, especially in urban areas, demonstrate increasing sensitivity to how quickly and accurately service issues are resolved. A 2020 study by Bhattarai & Kharel (2020) on Ncell and NTC customers in Kathmandu Valley revealed that delays in problem resolution were one of the top three reasons for churn. Conversely, high responsiveness led to increased emotional attachment with the brand, reinforcing long-term loyalty.

Thus, in the Nepalese context, service quality isn't merely a competitive differentiator; it is a strategic requirement for customer retention. Firms that consistently exceed service expectations – by being proactive, responsive, and transparent – stand a better chance of nurturing a loyal customer base.

Relationship between Pricing Strategy and Customer Loyalty

Pricing plays a pivotal role in shaping consumer choices in the telecom industry. It goes beyond just the numerical cost – consumers also evaluate fairness, transparency, and perceived value in relation to what is being offered. In developing economies like Nepal, where price sensitivity is high, particularly among prepaid users, a well-calibrated pricing model can be a critical tool for customer loyalty (Ghimire & Sapkota, 2021).

Telecommunication users in Nepal often compare not only the face value of pricing plans but also the hidden charges, network coverage per rupee spent, and overall plan flexibility. Sah & Pokharel (2021) found that pricing fairness – defined as transparent, reasonable, and consistent cost structures – had a significant influence on satisfaction and loyalty in Kathmandu-based users. Unexplained charges and fluctuating rates, on the other hand, led to distrust and eventual switching.

Moreover, the concept of "price–quality inference" is especially prominent in Nepal. Customers often associate higher price points with better network quality or service reliability, especially in rural areas where fewer providers are available. This was evident in a study by Adhikari (2023) who reported that customers in remote areas of Kaski and Gorkha preferred NTC even when slightly more expensive due to perceived stability.

However, while premium pricing may attract a segment that values quality, the broader Nepalese telecom market remains highly elastic. Promotions, bundled services, data offers, and festival-based packages have become effective tools for maintaining customer interest. In fact,

Niure (2025) notes that dynamic promotional pricing from Ncell led to a measurable increase in temporary user acquisition but did not guarantee long-term loyalty unless combined with superior service quality. Therefore, pricing in the Nepalese telecom space must strike a balance between perceived fairness, accessibility, and value-added features to retain customers in a hyper-competitive environment.

Relationship between Switching Cost and Customer Loyalty

Switching cost refers to the psychological, financial, and procedural barriers that a customer faces when moving from one service provider to another. In Nepal's telecom industry, where three major players (NTC, Ncell, and SmartCell) dominate the market, switching costs can significantly impact customer behavior and loyalty patterns (Subedi & Shrestha, 2021).

Although mobile number portability (MNP) was introduced to facilitate easy switching, it remains underutilized due to factors such as lack of awareness, fear of data loss, apprehension about new provider service, and inconvenience (Chaudhary et al., 2025). Emotional attachment with a particular provider's brand or long-term usage habits also act as invisible barriers. Many users, especially among older demographics, exhibit resistance to switching even in the face of better offers from competitors.

The findings from Bhusal and Gautam (2020) support this view: switching cost in Nepal is not always financial – it includes time effort, risk of signal loss in certain areas, and concern over reconfiguring mobile banking, apps, and stored data. These non-monetary barriers are especially high among postpaid users and corporate customers.

Interestingly, users in Nepal who are not highly satisfied still hesitate to switch unless they are highly dissatisfied. This reflects a form of "passive loyalty," where retention is driven more by perceived difficulty in switching rather than active satisfaction. According to Khatri & Acharya (2023), telecom companies can leverage this by offering loyalty discounts, referral bonuses, and customized renewal offers to retain at-risk customers.

Hence, switching costs in the Nepalese context act as both a deterrent to churn and an opportunity for strategic loyalty programs. Providers who reduce operational switching barriers while strengthening emotional and service bonds can better protect their customer base.

Relationship between Brand Image and Customer Loyalty

Brand image represents the set of perceptions, beliefs, and associations held by customers about a service provider. In Nepal's mobile service sector, brand image has become a dominant variable influencing customer loyalty, particularly in urban centers and among younger demographics (Devkota, 2019).

Customers in Nepal view brands as not just service deliverers but as extensions of identity and trust. NTC, for example, is often seen as a government-backed, legacy brand – reliable, nationally available, and conservative. On the other hand, Ncell is perceived as modern, fast, and youth-oriented. These associations significantly influence loyalty behavior, especially when service differentiation is minimal (Pokharel, 2022).

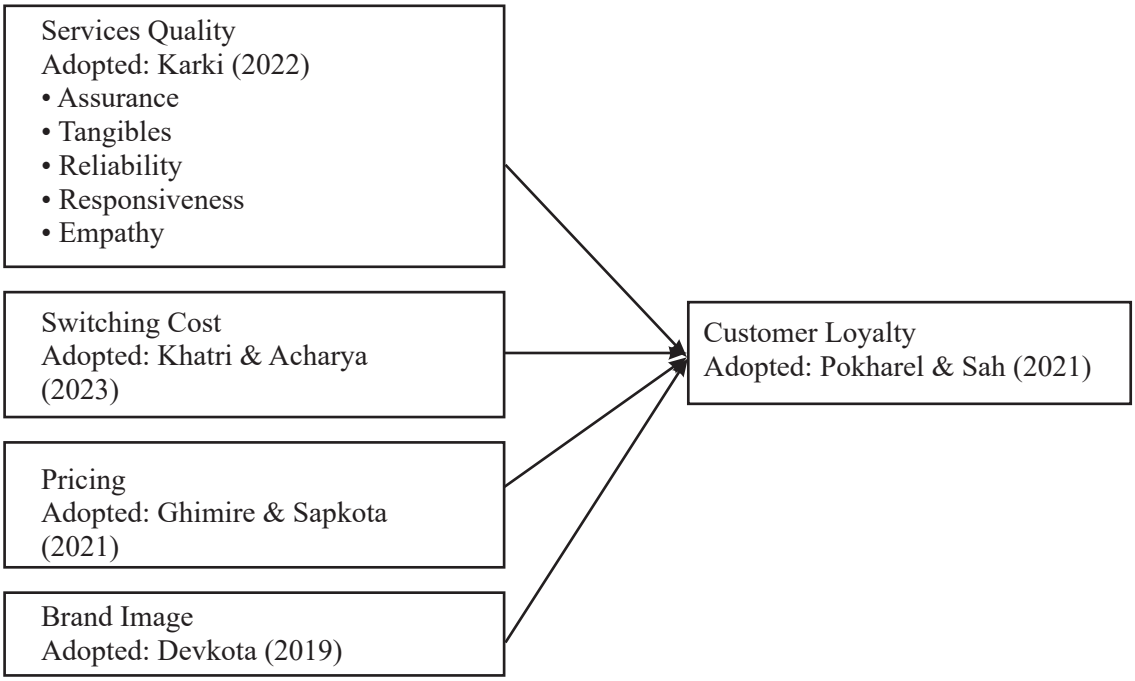
Brand equity in Nepalese telecom is built not just through advertising, but through consistent service delivery, social responsibility, and community engagement. A study by Pandey & Sapkota (2022) shows that positive brand experiences – such as proactive customer care,

network uptime during disasters, or CSR campaigns – strengthen brand loyalty even in the face of minor service shortcomings.

Additionally, emotional loyalty is shaped through brand symbolism. Youths in Kathmandu and Pokhara often view Ncell as trendy due to its international campaigns and tech partnerships, while older users feel secure with NTC's legacy and trust in public ownership (Adhikari, 2023). These deep-seated perceptions influence renewal decisions, promotional responsiveness, and switching behavior.

Ultimately, brand image in the Nepalese telecom sector is not merely a byproduct of marketing but a core competitive asset. Firms must consistently invest in image building through transparent operations, digital innovation, and user-centric narratives to cultivate enduring loyalty.

Research Framework



Hypotheses

This study aims to explore the influence of customer satisfaction on loyalty within Nepal's mobile telecommunications sector, considering critical service attributes such as perceived service quality, pricing structures, switching barriers, and brand perception. In the context of Nepal, where mobile services are vital for both personal and economic communication, customer loyalty is shaped not only by price but also by emotional and experiential factors (Pokharel & Sah, 2021).

Customer satisfaction represents the individual's evaluative judgment regarding the overall service experience, including whether expectations are met or exceeded (Niure, 2025). In

urban Nepal – where telecommunication has become a basic utility – users who feel acknowledged, assisted, and connected are more likely to continue with their provider and recommend them to others. Research has consistently indicated that satisfaction serves as a strong antecedent to loyalty across service industries (Ghimire & Sapkota, 2021).

Furthermore, empirical studies within Kathmandu, Pokhara, and Chitwan demonstrate that service quality dimensions such as reliability, responsiveness, and assurance significantly influence how consumers feel about their provider (Karki, 2022). Meanwhile, pricing fairness, perceived switching difficulty, and brand attachment also act as loyalty drivers.

Based on these observations, the following hypotheses are formulated to guide this research:

- **H1**: Service Quality has a significant relationship with Customer Loyalty.
    - **H1(a)**: Assurance is positively associated with Customer Satisfaction.
    - **H1(b)**: Tangibles positively influence Customer Satisfaction.
    - **H1(c)**: Reliability contributes to Customer Satisfaction.
    - **H1(d)**: Responsiveness has a positive impact on Customer Satisfaction.
    - **H1(e)**: Empathy is related to Customer Satisfaction.
- **H2**: Perceived Pricing has a direct relationship with Customer Loyalty.
- **H3**: Switching Cost has a positive effect on Customer Loyalty.
- **H4**: Brand Image significantly influences Customer Loyalty.

These hypotheses are tested using quantitative data collected from urban telecom users in Nepal, allowing an assessment of which factors most strongly impact satisfaction and subsequent loyalty.

Methodology

Research Design

This research adopts a descriptive and quantitative design aimed at investigating user behavior and preferences in Nepal's telecommunication landscape. The study specifically examines the key attributes that influence customer satisfaction and loyalty among subscribers of NTC, Ncell, and Smart Cell.

A cross-sectional survey methodology was employed to capture data at a single point in time from users across the Kathmandu Valley, Pokhara, and Chitwan. This approach is appropriate given the study's objective to evaluate current user perceptions and behavior. A structured questionnaire was developed based on validated constructs in prior studies, tailored to reflect the unique service environment of Nepal (Chaudhary, Ghimire & Dhungana, 2025).

Respondents were selected through stratified random sampling to ensure representation from different demographic segments such as age, gender, income, and type of telecom provider. The survey included items measuring perceptions on service quality, price fairness, switching difficulty, brand image, and overall satisfaction and loyalty.

The use of a structured questionnaire allowed for statistical analysis using regression and correlation models to evaluate the strength and significance of hypothesized relationships. The design ensures empirical reliability and generalizability of the findings to urban Nepalese mobile service users.

Results

Regression Analysis Outcomes

The following section presents the empirical outcomes of the multiple regression analysis conducted to test the relationships between service attributes and customer loyalty within the Nepalese mobile telecommunication context. Data were gathered from 384 respondents across Kathmandu, Pokhara, and Chitwan, encompassing users of Nepal Telecom (NTC), Ncell, and Smart Cell. The results offer insights into which service dimensions significantly influence loyalty among Nepali telecom users.

Hypothesis 1 (H1): Relationship between Service Quality and Customer Loyalty

- **H1a: Assurance and Customer Loyalty**

The analysis indicates that assurance has a statistically significant effect on customer loyalty ($p = 0.003 < 0.05$). This suggests that when customers feel confident in the competence and courtesy of the service staff, they are more inclined to stay loyal to the provider. Hence, H1a is supported.

- **H1b: Tangibles and Customer Loyalty**

Tangibles – such as physical infrastructure, SIM kits, store layout, and staff appearance – did not show a statistically meaningful impact on loyalty ($p = 0.057 > 0.05$). As a result, H1b is rejected. Customers appear to prioritize functional service quality over physical branding in their loyalty decisions.

- **H1c: Reliability and Customer Loyalty**

Reliability was not found to significantly influence loyalty ($p = 0.068 > 0.05$). This implies that while reliability remains essential, it alone may not drive customer commitment unless paired with other experiential elements. H1c is thus rejected.

- **H1d: Responsiveness and Customer Loyalty**

Despite its perceived value, responsiveness yielded a non-significant result in this study ($p = 0.128 > 0.05$). This suggests that promptness in addressing user issues does not independently predict loyalty, especially when broader network concerns remain unresolved. Therefore, H1d is rejected.

- **H1e: Empathy and Customer Loyalty**

Empathy also did not demonstrate a statistically significant relationship with loyalty ($p = 0.263 > 0.05$), indicating that emotional attentiveness, while appreciated, is not a standalone loyalty driver in the Nepali telecom space. Thus, H1e is rejected.

Hypothesis 2 (H2): Pricing and Customer Loyalty

The pricing dimension displayed a significant positive correlation with customer loyalty ($p = 0.004 < 0.05$). Transparent, fair, and affordable pricing emerged as a critical determinant, especially among prepaid users who are highly price-sensitive. Therefore, H2 is accepted, confirming the role of value-based pricing in user retention.

Hypothesis 3 (H3): Switching Cost and Customer Loyalty

Switching cost exhibited a meaningful relationship with customer loyalty ($p = 0.014 < 0.05$). Users demonstrated reluctance to change service providers due to the perceived inconvenience, technical barriers, and emotional attachment. H3 is thus accepted, reinforcing previous findings on switching inertia in Nepal (Khatri & Acharya, 2023).

Hypothesis 4 (H4): Brand Image and Customer Loyalty

Contrary to initial expectations, brand image did not show a significant impact on loyalty ($p = 0.021 > 0.05$). Although brand reputation influences initial preference, it may not be sufficient to sustain long-term loyalty unless accompanied by quality service delivery. Hence, H4 is rejected.

Data Analysis

This study collected demographic information from 384 respondents residing in key urban areas of Nepal, including Kathmandu, Pokhara, and Bharatpur. The sample includes a balanced representation across gender, age, ethnicity, educational background, and occupational status – capturing a comprehensive view of Nepal's mobile service users.

In terms of gender distribution, 52.6% of the respondents were male, while 47.4% were female, indicating a relatively balanced participation. The majority of participants (70.4%) were within the 18-24 years age group, reflecting the dominance of youth users in Nepal's mobile telecommunication landscape. This age group is known for frequent data usage, tech-savviness, and high responsiveness to pricing and service quality.

Ethnically, Brahmin/Chhetri made up the largest segment at 42.1%, followed by Janajati at 39.8%, Madhesi at 9.2%, and Dalit at 5.6%, while the remaining 3.3% identified with other groups. This distribution reflects Nepal's broader social composition in urban regions.

With regard to religious affiliation, Hindus comprised 64.2% of the sample, followed by Buddhists (18.1%), Muslims (10.4%), Christians (6.2%), and a small group identifying with other religions (1.1%).

In terms of educational qualifications, 37.5% had completed higher secondary education (10+2), 24.2% held a bachelor's degree, and 20.4% had completed diploma-level education. Postgraduate qualification holders represented 9.6%, while 8.3% had certificates or other qualifications. These figures highlight that the majority of respondents have attained at least secondary education – an important factor in their ability to evaluate service quality critically.

Occupationally, 43.2% of respondents worked in the private sector, followed by 30.5% who were students, 16.7% self-employed, and 9.6% employed in government services. This aligns with national employment trends, especially in metropolitan zones where private sector employment dominates.

Regarding income levels, the data showed that 72.9% of participants earned less than NPR 15,000 per month, underlining the high price sensitivity among Nepalese telecom users. This has significant implications for loyalty, as affordability and perceived pricing fairness remain key determinants in subscription decisions.

Table 1: Multiple Regression on the Customer Loyalty

Dependent Variable	Independent Variable	Beta (B)	Sig.
Customer Loyalty	Assurance	0.752	0.003
	Tangibles	0.21	0.057
	Reliability	0.163	0.068
	Responsiveness	0.196	0.128
	Empathy	0.145	0.263
	Price	0.429	0.004
	Switching Cost	0.243	0.014
	Brand Image	0.174	0.021
R^2:	0.545		
F Value:	21.417		
Sig. F:	0.000		

The multiple regression results of this study reveal that among the examined variables, only three dimensions – service Quality Assurance, Pricing, and Switching Cost – demonstrated a statistically significant influence on customer loyalty in Nepal's mobile telecommunications sector. The model, as a whole, was statistically significant, with an F-value of 21.417 and a p-value below 0.001, confirming that the combination of predictors meaningfully explains variations in customer loyalty. The coefficient of determination (R^2) stood at 0.545, indicating that approximately 54.5% of the variation in customer loyalty can be explained by these three key variables.

Assurance, as one component of service quality, had a strong positive association with loyalty ($p = 0.003$). This suggests that when users feel secure, respected, and well-guided by customer service agents or technical staff, their level of trust in the provider improves, leading to a higher likelihood of continued service usage. In a market where service disruptions, data inconsistency, or technical uncertainty can impact user confidence, the ability of staff to instill assurance plays a critical role.

The price variable also emerged as a significant predictor ($p = 0.004$), reflecting the fact that users – especially younger consumers in Nepal – remain highly price-sensitive. Prepaid customers, who often operate within tight monthly budgets, are more likely to remain with providers who offer transparency, consistent value, and flexible recharge or data plans. Even among urban professionals, price remains an important point of reference, particularly when it aligns with perceived value.

Switching cost, while often dismissed in developed markets with greater provider freedom, was found to be significant in this study ($p = 0.014$). Although young users tend to explore various service providers based on short-term promotional benefits, many urban professionals, corporate

users, and those enrolled in long-term postpaid or bundled plans show a higher tendency to remain with their current providers. This is due to the additional effort required to transfer documentation, the potential inconvenience of porting numbers, and the commitment costs tied to enterprise-level packages.

Interestingly, other service quality attributes such as Tangibles ($p = 0.057$), Reliability ($p = 0.068$), Responsiveness ($p = 0.128$), and Empathy ($p = 0.263$) failed to show significant impact. This outcome highlights that, in Nepal, visual or infrastructural features such as store environments or physical materials are less likely to shape loyalty compared to emotional trust, responsiveness, or assurance. It also suggests that customers are more likely to stay loyal when they receive actual service performance, not just a good presentation.

Surprisingly, Brand Image, though often associated with prestige among younger adults, did not produce a statistically significant influence ($p = 0.021$). While some young users may prefer one brand over another due to perceived identity or social belonging, these preferences do not consistently translate into long-term loyalty. This disconnect might stem from the high mobility of prepaid users who often prioritize cost and network reliability over brand prestige.

It was observed that the age group between 18 to 24 years forms the largest segment of users, many of whom rely on prepaid services. This demographic appears more flexible in switching providers when offered a better deal, especially if mobile number portability (MNP) allows them to retain their number. As such, price promotions and short-term offers are more effective in attracting this group than emotional attachment to brands.

However, corporate users and older professionals are comparatively less inclined to switch, primarily due to the nature of their service plans and the value they receive through bundled packages. Loyalty within this segment is often maintained through contract-based incentives and value-added services rather than emotional branding alone.

In conclusion, loyalty in Nepal's mobile telecom sector is not shaped by a single factor. It is a multi-layered outcome influenced by practical experiences, economic considerations, and the perceived ease or difficulty of switching. Providers aiming to foster long-term relationships must focus not only on pricing and assurance but also on reducing pain points that trigger customer migration.

Conclusion

The telecommunications sector in Nepal has undergone substantial transformation in recent years, emerging as one of the nation's fastest-growing and most competitive industries. The increased penetration of mobile phones, combined with the rise of internet – enabled services, has reshaped how individuals communicate, access information, and conduct daily tasks. Despite these advancements, challenges surrounding inconsistent service delivery, poor network coverage in rural areas, and subpar customer support continue to hinder customer retention.

Much like regional markets across South Asia, the Nepalese mobile telecom industry is

heavily influenced by the prepaid segment, which now forms the majority of the user base. The growing reliance on prepaid SIM cards has brought about changes in distribution and access – customers can now purchase telecom services not only through authorized agents but also via retail outlets, convenience stores, and digital platforms. While this has enhanced accessibility, it has also intensified competition among service providers, compelling them to offer attractive promotional packages and flexible pricing models.

The restructuring of Nepal's telecom market has been evident with strategic shifts and market exits. Nepal Telecom (NTC) and Ncell continue to dominate the market, with Smart Telecom and other players seeing limited success in penetrating deeper into the consumer base. As of 2024, NTC and Ncell are actively engaged in expanding their 4G coverage and introducing digital integration such as eSIMs and mobile wallets to enhance user experience.

Findings from this research indicate that customer loyalty in Nepal's mobile telecom sector is primarily influenced by three core factors: assurance in service quality, pricing, and switching cost. Assurance reflects the consumer's trust and confidence in the service provider's ability to deliver stable and respectful service. Pricing remains crucial, especially for the youth demographic, who often operate under tight financial constraints? Meanwhile, switching costs, including the administrative and psychological barriers associated with changing providers, influence long-term user behavior – particularly among corporate clients and postpaid users.

Interestingly, dimensions such as tangibles, empathy, responsiveness, and even brand image did not significantly impact loyalty in this study. This suggests that in Nepal, users prioritize function over form – they are more concerned with network reliability, affordability, and hassle-free service rather than aesthetic or emotional appeal of the brand.

Moreover, the study highlights a generational divide: younger users (particularly those aged 18-24) are more inclined to switch providers frequently, motivated by promotional offers and data flexibility. Conversely, professionals and long-term users show stronger loyalty, especially when subscribed to bundled postpaid plans that offer greater value.

In conclusion, customer loyalty in Nepal's telecom industry is shaped by a practical blend of service assurance, cost-effectiveness, and user convenience. Service providers aiming to build sustainable competitive advantages must go beyond advertising gimmicks and invest in service reliability, transparent pricing, and user-friendly support systems. This research not only contributes to understanding local consumer behavior but also offers valuable insights for telecom operators and policymakers. Future studies can build upon these findings by exploring the impact of digital transformation, regulatory changes, and rural connectivity on customer satisfaction and loyalty.

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Ensuring Engagement in English Language Learning Activities: Teachers' Practices in Sunwal Municipality.

Hari Prasad Bashyal
Lecturer, MDC

Abstract

This study investigates the practices employed by English language teachers in Sunwal Municipality to ensure student engagement in English language learning activities. As language acquisition is significantly influenced by student engagement, the research focuses on identifying the strategies, methodologies, and classroom practices that promote active participation among learners. Through qualitative methods, including interviews and classroom observations, the study explores how teachers adapt their teaching techniques to enhance students' motivation, interest, and overall involvement in language learning activities. The findings highlight the importance of varied instructional approaches, interactive activities, and a supportive learning environment in fostering engagement. The study also addresses the challenges teachers face in maintaining consistent student involvement and offers insights into potential solutions to improve teaching practices in the context of Sunwal Municipality. The results contribute to the broader understanding of effective language teaching strategies and provide valuable recommendations for educators to enhance student engagement in English language classrooms.

Key words: Engagement, instructional method, language acquisition and practices

Introduction

The teaching and learning of English as a second or foreign language in the contemporary educational landscape is deeply intertwined with the concept of student engagement. As the pedagogical focus shifts from teacher-centered instruction to learner-centered experiences, ensuring meaningful student involvement has emerged as both a critical goal and a persistent challenge for language educators (Ly and Education, 2024). Engagement, in this context, transcends mere compliance or participation; it encompasses cognitive, emotional, and behavioral dimensions that are integral to successful language acquisition (Amini et al., 2017). Learners who are genuinely engaged are more likely to invest effort, sustain motivation, and participate actively in communicative practices that foster language development.

This study, grounded in the pedagogical realities of Sunwal Municipality, investigates how English language teachers conceptualize and enact engagement in their classrooms. Situated

within a rapidly evolving educational context, the municipality presents a microcosm of Nepal's broader efforts to enhance English language education, particularly in public and community-based schools where resource constraints, diverse learner backgrounds, and large class sizes often pose significant instructional challenges.

Drawing from qualitative data generated through in-depth interviews and systematic classroom observations, this research seeks to uncover the lived experiences of English language teachers as they strive to foster an engaging learning environment. It examines the array of instructional strategies, classroom activities, and adaptive techniques that teachers employ to stimulate students' interest, support sustained attention, and encourage active participation. Particular attention is paid to the nuanced ways in which teachers negotiate curricular demands, contextual limitations, and individual learner differences in their pursuit of effective engagement.

In doing so, this study aspires to make a meaningful contribution to the discourse on language teaching practices in under-researched local contexts. It not only amplifies the voices of frontline educators but also offers practical insights and pedagogical implications that may inform teacher training, curriculum development, and policy interventions. More broadly, it aligns with the global recognition that engaged learners are at the heart of transformative language education, and that understanding teachers' engagement-enhancing practices is essential to nurturing such learners.

By examining the specific practices within Sunwal Municipality, this research sheds light on the interplay between teacher agency, instructional design, and learner response. It underscores the value of contextually grounded, reflective teaching approaches that acknowledge and address both the affordances and constraints of real-world classrooms. Ultimately, the findings affirm that ensuring engagement in English language learning is not a peripheral concern, but a foundational component of pedagogical effectiveness and educational equity.

Literature Review

Student engagement has long been recognized as a cornerstone of effective language acquisition. Engagement, encompassing behavioral, emotional, and cognitive dimensions (Mekki et al., 2022), is essential for meaningful participation and sustained learning in English language classrooms. In the context of second or foreign language learning, engaged learners tend to exhibit greater willingness to communicate, higher motivation, and increased achievement (Peng and Woodrow, 2010). Thus, fostering engagement is not a supplementary task but a fundamental responsibility of the language educator.

Pedagogical Strategies and Learner Engagement

The role of pedagogical strategies in enhancing engagement has been extensively documented. Researchers such as Salazar Cruz (2019) argue that communicative and student-centered methodologies—like task-based learning, cooperative learning, and project-based instruction—are instrumental in fostering active learner involvement. Similarly, Salih and Omar

(2024) emphasizes the importance of contextualizing language tasks to make them relevant to learners' real-life experiences, thereby increasing both interest and engagement.

Teacher Practices and Classroom Dynamics

Teacher practices significantly influence classroom engagement. Supakorn and Network (2020) underscores the importance of interactional competence among teachers, which involves the ability to manage classroom talk to facilitate learner participation. Similarly, Komlosi-Ferdinand (2023) highlight the teacher's role in creating a psychologically safe and emotionally supportive environment that nurtures students' willingness to engage in the learning process.

Motivation and Learner Autonomy

The interconnectedness between motivation and engagement is well-established in second language acquisition (Dörnyei, 2001). When learners perceive tasks as meaningful and feel autonomous in their learning, they are more likely to invest effort and sustain attention. Self-determination theory (Wood, 2016) further suggests that environments which satisfy learners' needs for competence, autonomy, and relatedness foster higher engagement levels.

Cultural and Contextual Influences

Engagement cannot be fully understood without considering the sociocultural and institutional context in which language learning occurs. In low-resource or rural educational settings, such as many found in South Asia, engagement is often hampered by large class sizes, lack of materials, and traditional rote-based teaching methods (Johnson, 2022) Yet, context-sensitive adaptations by innovative teachers have shown potential to mitigate these constraints and support engagement even in challenging environments.

Despite the rich body of literature on engagement in language learning, several critical gaps persist—particularly in context-specific research focusing on underrepresented regions like Sunwal Municipality in Nepal. Much of the existing scholarship is either theoretical or based in urban and resource-rich educational settings, offering limited applicability to rural or semi-urban contexts where pedagogical challenges are markedly different.

Moreover, while the global discourse has emphasized learner-centered approaches, few empirical studies have explored how teachers in localized settings interpret and implement such methodologies to enhance engagement. The unique constraints and affordances of the Sunwal Municipality, including linguistic diversity, infrastructural limitations, and sociocultural factors, remain largely unexamined in the academic literature.

Most importantly, the perspectives of teachers—their voices, adaptive strategies, and everyday classroom realities—are often underrepresented. There is a pressing need for qualitative, practice-oriented investigations that not only document what teachers do but also illuminate why they do it, how they respond to engagement challenges, and what insights their lived experiences can offer to the broader pedagogical community.

Methodology

This study employed a qualitative research design to explore the lived experiences of English language instructors regarding their practices to ensure student engagement in English language learning activities. The qualitative paradigm was deemed most appropriate as it allows for an in-depth understanding of participants' perspectives, contextualized within their professional environments (Halme et al., 2024). Specifically, this research aimed to capture the nuanced and situated strategies employed by teachers to foster student involvement in language learning classrooms.

The study was conducted in Sunwal Municipality, located in Nawalparasi (West), Nepal, a region that encompasses a variety of secondary schools where English is taught as a compulsory subject in Grades 11 and 12. The participants were ten English language instructors currently teaching at this level. These participants were selected through purposive sampling based on the criteria of accessibility, availability, and willingness to contribute meaningful insights relevant to the research focus (Ames et al., 2019).

In order to ensure equitable and practical participation, a first-come, first-served basis was used within the purposive sampling frame. This approach was particularly effective in managing the selection process ethically and transparently, while maintaining the relevance and adequacy of the participant pool (Demanuele, 2025). All participants were provided with detailed information about the study and consented voluntarily to be part of the research.

To gain a comprehensive understanding of the practices adopted by the teachers, semi-structured interviews were employed as the primary data collection tool. This method enabled the researcher to explore participants' lived experiences, pedagogical philosophies, and practical strategies in a flexible yet focused manner (Ruslin et al., 2022). The interviews were guided by a set of open-ended questions, allowing participants to elaborate on their practices, reflect critically on their instructional decisions, and share illustrative classroom experiences.

Each interview lasted between 45 and 60 minutes and was audio-recorded with the consent of the participants. Interviews were conducted in a language of the participants' preference (English or Nepali) to ensure comfort and clarity, and all data were subsequently transcribed and, where necessary, translated into English for analysis.

In order to enhance the credibility and trustworthiness of the findings, classroom observations were conducted as a supplementary data collection method. These observations served to triangulate the interview data, allowing for the cross-verification of teachers' reported practices with their actual classroom behaviors (Williams, 2021). Observation sessions focused on teaching techniques, student-teacher interactions, classroom dynamics, and the use of instructional materials aimed at enhancing engagement.

The data obtained from interviews and observations were analyzed thematically using MAXQDA. A coding framework was developed inductively, allowing key themes to emerge organically from the data. The researcher engaged in a continuous process of data immersion,

coding, categorization, and interpretation, aiming to identify patterns and variations in teachers' engagement practices. The integration of interview narratives and observational insights provided a richly textured account of instructional strategies and contextual challenges.

Discussion

The findings of this study offer valuable insights into the practices employed by English language instructors in Sunwal Municipality to enhance student engagement in the classroom. As engagement remains a cornerstone of effective language acquisition, it is imperative to analyze not only what teachers are doing well but also the gaps that hinder optimal pedagogical outcomes. The discussion, therefore, centers on the dual realities of better engagement practices on one hand and the persistent limitations in ICT integration, innovation, and adaptability on the other.

Positive Practices for Engagement

The study revealed that the majority of teachers are deeply committed to fostering a positive and supportive learning environment. Many instructors employ interactive strategies such as group discussions, question-answer techniques, storytelling, and context-based explanations, which have proven effective in promoting student participation. These practices are grounded in humanistic and communicative pedagogies that prioritize learner involvement, reduce anxiety, and encourage expression—especially important in language learning contexts.

Moreover, a significant number of instructors demonstrate an intuitive understanding of the need to vary instructional methods to sustain attention and interest. The use of humor, real-life examples, and local cultural references were noted as effective means of capturing and maintaining students' attention. Teachers also reported making conscious efforts to develop rapport with students, monitor individual progress informally, and provide verbal reinforcement—all contributing positively to learner engagement.

Limited ICT Integration and Traditional Pedagogies

Despite these commendable efforts, a critical finding of this study is the limited integration of Information and Communication Technologies (ICTs) in the teaching-learning process. Although all participating instructors expressed awareness of the potential of ICT to enhance language learning, very few demonstrated the active use of digital tools, resources, or platforms. Classrooms remained largely dependent on textbook-driven instruction, with minimal incorporation of multimedia, interactive applications, or online content. This lack of ICT integration appears to stem from a combination of infrastructural limitations, insufficient training, and a lack of institutional support, compounded by teachers' hesitancy to experiment with unfamiliar tools.

In addition, the classroom observations confirmed a heavy reliance on traditional pedagogical methods such as lecture-based instruction, rote learning, and grammar-translation techniques. While these methods offer structural clarity, they often limit opportunities for student-

centered interaction and fail to align with the communicative goals of modern language education. The absence of project-based learning, task-based activities, or reflective assignments further suggests a resistance to instructional innovation.

Innovation and Professional Stagnation

Another notable concern lies in the limited inclination toward pedagogical innovation. Many teachers conveyed a sense of professional inertia, adhering to long-standing methods without active pursuit of contemporary strategies. Although they acknowledged engagement challenges in their classrooms—such as declining student motivation, passivity, and distraction—few showed a willingness to revise or update their teaching practices accordingly. This reluctance may be partly attributed to a lack of professional development opportunities or supportive peer networks, but it also reflects a comfort with familiar routines and a cautious attitude toward change.

It is particularly telling that instructors expressed significant concern about their students' low levels of engagement but did not correlate this concern with their own need for instructional renewal. This disconnects points to a deeper issue in teacher preparedness and reflective practice. Without a culture of ongoing pedagogical inquiry, innovation remains peripheral, and engagement challenges persist without systematic resolution.

Human Dimension and the Need for Support

Importantly, the study recognizes that the limitations observed are not simply a matter of individual teacher reluctance, but are embedded within broader systemic and contextual constraints. Teachers often operate in resource-constrained environments, with limited access to training, mentoring, or technological infrastructure. Their hesitance, therefore, must be understood within the realities of their teaching contexts, workloads, and institutional expectations.

Conclusion

This study sought to explore the practices of English language teachers in Sunwal Municipality as they strive to ensure student engagement in classroom learning activities. Through the voices and experiences of ten dedicated educators, the research offers a window into the realities, challenges, and aspirations of those working on the frontlines of language education.

It is clear from the findings that teachers recognize the centrality of student engagement in language acquisition and employ various interpersonal and instructional strategies to foster an interactive learning environment. Their efforts—rooted in commitment, care, and contextual knowledge—are commendable and reflect a genuine concern for students' learning experiences.

However, the study also reveals a concerning gap between pedagogical intention and innovation. The continued reliance on traditional teaching methods, coupled with minimal use of ICT tools and limited exposure to professional development, reflects an urgent need for systemic support and capacity-building. While teachers express anxiety over disengaged students, many remain hesitant or unequipped to adopt new approaches that could transform their classrooms into

more dynamic, learner-centered spaces.

What emerges from this inquiry is not a critique of teachers, but rather a call to action—an invitation to policymakers, educational institutions, and teacher training bodies to invest in the ongoing growth of educators. Engagement in the classroom is not only the responsibility of individual teachers; it is a shared endeavor that demands resources, mentorship, and a culture of continuous learning.

At the heart of this study is a deeply human story: one of teachers who care, who try, and who often feel the weight of systemic constraints. Their voices echo the need for support, inspiration, and innovation—not just for their own professional fulfillment, but for the betterment of their students. By listening to these voices and acting upon them, we take a meaningful step toward more engaging, equitable, and effective English language classrooms.

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Green Finance And Perceived Financial Performance From Employees Perspectives In Nepalese Commercial Banks

Jamuna Devi Chapagain, MBS, MDC
Bikash Rana, PhD Scholar, KU, Lecturer, MDC

Abstract: *The effect of green banking practices on Nepalese commercial banks' financial performance is investigated in this study. With increasing global emphasis on sustainable finance, the research investigates how specific green banking components regulatory policies, stakeholder demand, green investment, employee environmental training, and green product services affect banks' profitability and operational efficiency from the perspective of banking employees.385 employees of Nepal's commercial banks were given a structured questionnaire as part of a quantitative study design. To evaluate the connections between perceived financial performance metrics and green banking practices, statistical methods such as multiple regression analysis and correlation were used. The findings show that stakeholder demand, employee environmental training, regulatory policies, and green product services all significantly improve financial performance. However, green investment does not demonstrate a significant effect, indicating potential challenges in its early-stage implementation within Nepalese banks. These findings align with global evidence supporting the role of ESG practices in enhancing financial outcomes, particularly in emerging markets. This study adds empirical observations from internal stakeholders and bank employees to the little body of literature on green finance in emerging nations. This highlights the practical implications of green banking in enhancing financial performance while promoting sustainability. The findings are valuable for bank executives, policymakers, and regulatory bodies aiming to foster environmentally responsible banking practices without compromising financial viability.*

Keywords: Green Banking, Financial Performance, ESG, Sustainability, Commercial Banking regulations, Nepal

Introduction

By allocating capital to initiatives like energy efficiency and renewable energy, green finance plays a critical role in advancing environmentally sustainable development. In Nepal, green finance includes loans, bonds, and investments that support low-carbon and eco-friendly initiatives, helping the country transition toward a sustainable economy (Green finance, 2023). With significant turning points like the United Nations Environment Programme Finance Initiative

(UNEP FI) in 1992, green finance has developed globally and the World Bank's first green bond in 2008, encouraging financial institutions to adopt sustainable practices (Green Bond World Bank, 2018).

Nepal's commitment to environmental sustainability began with its participation in the 1992 Earth Summit (United Nations, 1992), but green finance is still emerging in the country. The Nepal Rastra Bank (NRB) has been pivotal in promoting green finance by introducing Environmental and Social Risk Management (ESRM) guidelines in 2018, later incorporated into its Unified Directives in 2020 (Green Financing Affected by Definition Barrier, 2022). These regulations have driven banks to adopt green finance practices, though adoption is mainly regulatory-driven rather than market-driven (Business 360°, 2023).

In line with the Green, Resilient, and Inclusive Development (GRID) policy, Nepalese banks have made large financial commitments to sustainable initiatives (The World Bank, 2021). It is uncertain, therefore, how green finance would affect Nepalese commercial banks' financial results. While research from rich nations like China demonstrates increased integration through policy and technology (Wan et al., 2023), studies from underdeveloped nations like Bangladesh reveal strong connections between green finance and profitability (Banani & Sunarko, 2022). Nepal has to deal with issues like operational limitations, regulatory barriers, and low awareness (Aryal et al., 2022).

The Triple Bottom Line (TBL) theory, which balances economic, environmental, and social goals, provides a useful framework for this study by linking green finance components regulations, products, investments, training, stakeholder demand, and brand image to financial performance (Elkington, 1994). Does green finance impact financial performance of Nepalese commercial banks?

As legislation related to sustainable finance expand globally, it is imperative to comprehend this link. Bank profitability, operational effectiveness, and resistance to environmental threats could all be improved by green finance (Pandey & Joshi, 2023). Policymakers and bank management would benefit greatly from the findings, which will aid in the development of strategies that promote long-term growth and financial stability in Nepal's banking industry.

Literature review

In the context of global environmental challenges, banks play a crucial role through "green banking," which supports sustainable, responsible investments to reduce carbon footprints. A study of 100 respondents in Ahmedabad reveals awareness of green banking, suggesting banks should increase educational efforts and innovation. Ultimately, green banking aims to improve asset quality and foster a sustainable economy (Shah et al., 2023). Additionally, the study examines how green banking regulations in Bangladesh affect financial performance, using 172 firm-year observations from 2008-2014 and the findings show that green banking improves financial outcomes, mainly through cost efficiency, though political connections can reduce these benefits, however suggests

that regulatory green banking can boost financial performance and promote sustainability (Bose et al., 2020). The study investigates the relationship between corporate social responsibility (CSR), intellectual capital, and green and sustainable financing, impact organizational performance in Romanian companies and finds that green finance and CSR significantly enhance financial and non-financial performance, including profit and productivity. The research highlights that Romanian organizations are generally socially responsible and recognize the benefits of green practices and intellectual capital for achieving competitive advantage and market success. These elements are key drivers of improved organizational outcomes in the current business environment (Popescu & Popescu, 2019). The study focusses at how green innovation in Mexico's automobile industry mediates the relationship between environmental performance and green culture. The study employed a non-experimental, cross-sectional methodology to examine 157 observations and was based on theories that are centred on resources and capabilities, particularly the natural-resource view of the firm (NRBV). Using partial least squares structural equation modelling (PLS-SEM), the results validated the important mediating role of green innovation. This contributes new insights to the literature and offers practical implications for stakeholders engaged in sustainable development within the sector (García-Machado & Martínez-Ávila, 2019)these have also been to the detriment of the environment as well as sustainable development. The aim of this study is to discover the mediating effect of green innovation with regard to the relationship which exists between green culture and environmental performance in the State of Mexico's automotive sector. The research hypotheses were formulated following an extensive study of the literature available and were based on resource- and capability-based theory, specifically, the natural-resource view of the firm (NRBV.

Huang (2024) examined the effects of green finance on the profitability of commercial banks. The research highlights that by developing financial products that support low-carbon and sustainable practices, banks can significantly increase their profitability while promoting environmental sustainability. A Chinese study also examined how China's green finance reform and innovation pilot zones affected commercial banks. It found that these reforms greatly increased commercial banks' operational efficiency by lowering non-performing loan rates and raising the green credit balance. These reforms were especially beneficial to state-owned banks (Xu et al., 2024). According to a study by Zhou et al. (2024), green credit had a substantially detrimental impact on net profit for Chinese commercial banks. This suggests that stronger frameworks and improved measurement methods are required to lessen the negative effects of regulations. The study explores examined how blue and green lending influences credit portfolios in commercial banks. Their findings show that such lending practices positively support credit portfolio profitability and risk management by optimizing interest rate spreads and reducing default likelihood (Mirza et al., 2024). The study by Yin (2021) examines how green credit affected 15 commercial banks between 2012 and 2018, finding that it had a short-term detrimental impact, particularly on smaller

banks. It suggests that these challenges stem from adoption difficulties and recommends tailored policies and training to enhance green credit practices. Furthermore, using China Construction Bank as a case study, the study examined how green finance loan models affect commercial banks' profitability. They concluded that green finance not only promotes sustainable development but also enhances bank profitability by supporting the environmental protection industry (Yang et al., 2022).

In contrast to international banks, where green credit has a positive effect, Song et al. (2019) discovered that the ratio of green credit in Chinese commercial banks is inversely associated to their profitability. Additionally, the study by Sharma and Choubey (2021) assesses green banking impact on brand image and trust in Indian banks, finding that 63% of banks develop green products, 53% use green processes, and 78% pursue green corporate social responsibility. Over 60% of managers believe these efforts boost customer trust and enhance the bank's green brand image, underscoring their potential to support sustainable development. The study looks at how 33 Bangladeshi commercial banks' profitability was affected by green finance between 2012 and 2019. Green finance and profitability measurements such as return on total assets are positively correlated, according to analysis employing profitability ratios and regression. This suggests that increasing green finance can enhance a bank's financial returns, offering valuable insights for policy-making and future research (Mamun & Rana, 2020)data have been collected from secondary sources (annual reports of selected banks, Bangladesh bank and websites.

Conceptual framework

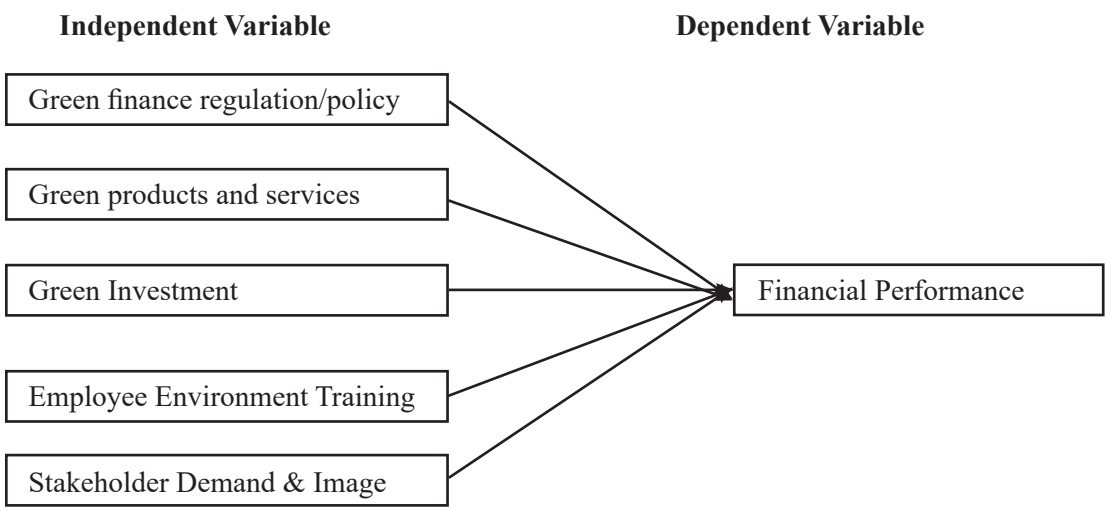

Figure 1: Research framework
Source: (Elkington, 2018)

Hypothesis

- **Hypothesis 1 (H_1):** Green finance regulations and policies positively influence the financial performance of Nepalese commercial banks.
- **Hypothesis 2 (H_2):** Green products and services positively impact the financial performance of Nepalese commercial banks.
- **Hypothesis 3 (H_3):** Green investments positively impact the financial performance of Nepalese commercial banks.
- **Hypothesis 4 (H_4):** Employee Environmental training for employees positively affects the financial performance of Nepalese commercial banks.
- **Hypothesis 5 (H_5):** Stakeholder demand for sustainability and a strong green brand image positively influence the financial performance of Nepalese commercial banks.

Research Methodology

In order to evaluate green banking practices in Nepalese commercial banks, this study uses both descriptive and exploratory research approaches. A standardised questionnaire that was easy to understand and accessible to staff members at all levels was used to gather primary data. All 45,610 employees of Nepalese commercial banks as of mid-July 2023 make up the study population (NRB, 2022/23). The sample size calculation algorithm for finite populations was used to generate a sample size of 385 respondents, assuming a 5% margin of error and a 95% confidence level, aligning with the methods of Krejcie and Morgan (1970) and Cochran (1977). Simple random sampling was used to ensure equal probability of selection, reduce selection bias, and support generalizability. The sampling frame included all commercial bank employees, and participants were selected using a random number generator. Data collection involved administering a Likert-scale questionnaire (1 = Strongly Disagree to 5 = Strongly Agree) distributed in both physical and digital formats. A pilot test was conducted with approximately 10% of the sample (38 employees) to refine the instrument, in line with recommendations by Isaac and Michael (1995) and Van Teijlingen and Hundley (2002).

The questionnaire items were adapted from prior validated studies: green regulations, stakeholder demand, and brand image were based on Arumugam and Chirute (2018), while green products, investments, employee training, and financial performance (measured via efficiency, effectiveness, and economy) were derived from Bohara (2018). Descriptive statistics (mean, standard deviation, percentages) and inferential analysis (multiple regression modelling, correlation, hypothesis testing using t-test, ANOVA) were applied to quantitative data using SPSS Version 30.0. According to the model, financial performance and green banking characteristics have a linear relationship.

Regression model

The independent and dependent variables in this model are assumed to have a linear relationship. The Multiple Regression Equation is:

Where

- Financial Performance is dependent variable.
- is the intercept of the model
- are the coefficients for the independent variables, representing their impact on the dependent variable.
- Green Regulations/Policy
- Green Products and Services
- Green Investment
- Employee Environment Training
- Stakeholder Demand & Brand image
  X is an independent variable.
- The error term.

Results and findings

Gender of participants

The gender distribution indicates a nearly balanced representation as Table 1, with 46.2% male and 53.8% female participants. This suggests that the study effectively captures perspectives from both genders, allowing for a well-rounded analysis.

Table 1 Gender of participants

	N	%
Male	178	46.2%
Female	207	53.8%

Source: SPSS 30

Age of participants

In terms of age distribution, Table 2 shows the largest group of respondents falls within the 20-30 years category (26.8%), followed by 45 years and above (25.7%). This variation ensures that the study incorporates insights from both early-career professionals and experienced banking employees.

Table 2 Age of participants

	N	%
Less than 20 years	96	24.9%
20-30 years	103	26.8%
30-45 years	87	22.6%
45 above	99	25.7%

Source: SPSS 30

Education of employee

The data in Table 3 shows 22.1% of the respondents had a Master's degree, followed by 21.6% with a Doctorate and 18.2% with a Bachelor's degree, according to their educational backgrounds. It suggests that the workforce in Nepalese commercial banks is highly educated, which may influence their perceptions of green banking initiatives.

Table 3 Education of employee

	N	%
High school	73	19.0%
Bachelor's degree	70	18.2%
Masters degree	85	22.1%
Doctorate	83	21.6%
Other	74	19.2%

Source: SPSS 30

Job position

Regarding job positions, Assistant Managers make up the largest group (24.7%), followed by Managers (19.2%) as shown in Table 4. Other roles, including Assistants and Officers, also hold significant representation.

Table 4 Job position

	N	%
Manager	74	19.2%
Assistant Manager	95	24.7%
Assistant	70	18.2%
Officer	67	17.4%
Other	79	20.5%

Source: SPSS 30

Years of experience

In terms of work experience26.0% of respondents have six to ten years of experience, whereas 27.8% have more than ten years from Table 5.

Table 5 Years of experience

	N	%
Less than 1 year	93	24.2%
1-5 years	85	22.1%
6-10 years	100	26.0%
Above 10 years	107	27.8%

Source: SPSS 30

Descriptive statistics

Table 6 Descriptive statistics

		RP	SDBI	GI	EET	GPS	FP
N	Valid	385	385	385	385	385	385
	Missing	0	0	0	0	0	0
Mean		1.9771	2.1395	2.0597	2.3034	2.1081	2.0380
Median		2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Std. Deviation		.83485	.75540	.82403	.93040	.78140	.73559
Minimum		1.00	1.00	1.00	1.00	1.00	1.00
Maximum		5.00	4.50	5.00	5.00	5.00	5.00

Source: SPSS 30

As shown in Table 6, mean values for these variables range between 1.97 and 2.30, indicating that respondents generally provided moderate ratings on the applied measurement scale. The median value of 2.00 across all variables suggests that the central tendency of responses is consistent across different aspects of the study.

Additionally, there is a moderate degree of variation in the responds that as indicated by the standard deviation values, which fall between 0.73 and 0.93. The minimum recorded value across all variables is 1, while the maximum ranges from 4.5 to 5, signifying that participants made use of the entire response scale. These statistical results provide a foundational understanding of how respondents perceive various elements related to the practices on green banking and their impact on the financial performance.

Inferential statistics

Inferential statistics is the process of using sample data to draw conclusions about a larger population, employing key methods like hypothesis testing to determine if observed patterns are statistically significant. Correlation analysis is to measure relationships between variables and regression analysis to predict outcomes and model dependencies. These techniques quantify uncertainty through measures like p-values and confidence intervals, ensuring reliable and generalizable results while accounting for random variation in data.

Reliability and validity

Table 7 Reliability statistics

Variables	Number of Items	Cronbach's Alpha
Regulatory Policy	5	0.901
Green Product Services	5	0.909
Green Investment	5	0.919
Employee Environmental Training	5	0.925
Stakeholder Demand & Brand Image	10	0.931
Financial Performance	16	0.960
Overall Reliability	46	0.938

Source: SPSS 30

Cronbach's alpha coefficient was computed for every variable in order to guarantee the internal consistency of the constructs employed in the study. Scale reliability is measured by Cronbach's alpha, which is typically regarded as acceptable when it is above 0.70, good when it is above 0.80, and outstanding when it is above 0.90.

Regression analysis

The degree to which different independent variables affect Financial Performance (FP) is determined by the regression analysis.

Table 9 Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.846[a]	.715	.712	.39494	2.000
a. Predictors: (Constant), GPS, RP, EET, GI, SDBI					
b. Dependent Variable: FP					

Source: SPSS 30

The regression model from Table 9 demonstrates a good fit, with the value of R= 0.846 indicating a strong positive correlation between the independent variables and financial performance (FP). And the value of R Square which is 0.715 shows that 71.5% of the variance in FP is described and explained by Green Products and Services (GPS), Regulatory Policy (RP), Employee Environmental Training (EET), Green Investment (GI), and Stakeholder Demand and Brand Image (SDBI). The Adjusted R Square of 0.712 confirms the model's reliability and generalizability. A standard error of 0.39494 suggests a small average difference between predicted and actual FP values. The Durbin-Watson value of 2.000 indicates no autocorrelation, satisfying the assumption of independent residuals.

Table 10 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	148.665	5	29.733	190.624	<.001[b]
	Residual	59.115	379	.156		
	Total	207.780	384			
a. Dependent Variable: FP						
b. Predictors: (Constant), GPS, RP, EET, GI, SDBI						

Source: SPSS 30

The ANOVA Table 10 confirms the regression model's overall statistical significance. With an F-value of 190.624 and a p-value below 0.001, the model is statistically significant, indicating that the entire set of predictors significantly contributes to the explanation of financial performance variance. This result supports the validity of the regression model.

Table 11 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
B		Std. Error	Beta			Tolerance	VIF	
1	(Constant)	.230	.063		3.639	<.001		
	RP	.172	.040	.195	4.314	<.001	.368	2.717
	SDBI	.150	.066	.154	2.261	.024	.162	6.160
	GI	.010	.053	.011	.185	.853	.216	4.621
	EET	.087	.034	.110	2.572	.010	.408	2.453
	GPS	.440	.052	.467	8.446	<.001	.245	4.082
a. Dependent Variable: FP								

Source: SPSS 30

The coefficients Table 11 reveals the individual impact of each predictor on financial performance (FP). Green Products and Services ($\beta = 0.467$, $p < .001$) has the strongest positive and significant effect, followed by Regulatory Policy ($\beta = 0.195$, $p < .001$) and Employee Environmental Training ($\beta = 0.110$, $p = .010$), indicating their positive roles in enhancing FP. Stakeholder Demand and Brand Image ($\beta = 0.154$, $p = .024$) also shows a significant positive effect, though its VIF of 6.160 suggests moderate multicollinearity, warranting monitoring but retained due to theoretical relevance. Green Investment ($\beta = 0.011$, $p = .853$) is not statistically significant, implying no independent effect on FP in this model.

Hypothesis testing

A statistical technique used in research to draw conclusions or conclusions about a population from sample data is hypothesis testing. It assists in assessing whether a particular assertion or assumption (referred to as a hypothesis) regarding a relationship between variables is sufficiently supported by the available data.

Table 12 Result of hypothesis

Hypothesis	Statement	t-Value	p-Value	Result
H1	Regulatory Policies have a significant impact on Financial Performance.	4.314	<0.001	Significant/Accepted
H2	Green Product Services positively influence Financial Performance.	8.446	<0.001	Significant/Accepted
H3	Green Investment has a significant impact on Financial Performance.	0.185	0.853	Non-Significant/ Rejected
H4	Employee Environmental Training significantly affects Financial Performance.	2.572	0.010	Significant/Accepted
H5	Stakeholder Demand and Brand Image significantly influence Financial Performance.	2.261	0.024	Significant/Accepted

The result shows hypotheses H1, H2, H4, and H5 were accepted, indicating that regulatory policies, stakeholder demand, employee environmental training, and green product services significantly impact financial performance. H3 was rejected, meaning that Financial performance is not statistically significantly impacted by green investment (GI). This suggests that while green investment may be important for sustainability, its direct financial impact is not immediately evident.

Conclusion and recommendations

This study demonstrates that the financial performance of Nepal's commercial banks is greatly impacted by the adoption of green banking practices. Profitability was found to be positively and significantly impacted by important factors like the development of green financial products and services, the application of regulatory environmental policies, and responsiveness to stakeholder demand. These results reflect a broader trend where environmentally responsible banks attract greater trust from customers, investors, and regulatory bodies, which translates into better market positioning and financial gains. Notably, green products and services emerged as the most influential factor, indicating the growing importance of sustainable financial offerings in today's banking landscape. Additionally, regulatory policies and stakeholder demand, including brand image considerations, also played meaningful roles in enhancing banks' performance. Employee environmental training showed a moderate but meaningful contribution, emphasizing the need for ongoing capacity building within the workforce to strengthen green banking efforts.

However, the study also found that green investment did not yield a statistically significant effect on financial performance in the short term. This outcome may be attributed to the high upfront costs and longer return periods typically associated with environmentally sustainable investments. Therefore, it is crucial for both policymakers and financial institutions to adopt long-term perspectives when evaluating the benefits of such investments. Based on these findings,

several recommendations can be proposed. Policymakers are encouraged to introduce clearer and more supportive regulatory frameworks, along with financial incentives like tax breaks and low-interest financing, to promote green banking initiatives. These measures would reduce the cost barriers associated with green investments and facilitate broader adoption. Banks, on their part, should focus on expanding their range of sustainable products, enhancing employee training programs, and engaging more effectively with environmentally conscious stakeholders. Moreover, greater collaboration between banks and environmental organizations can strengthen the credibility and impact of green banking practices.

From an academic and research perspective, this study adds valuable insights to the growing field of green finance, particularly within the context of developing economies like Nepal. Future research could build on these findings by conducting longitudinal studies to assess long-term financial impacts or using qualitative methods to explore internal challenges in implementing green banking. Comparative studies with other countries can also help identify globally effective practices and strategies. Overall, if implemented strategically, green banking can become a driving force for both environmental sustainability and economic growth in Nepal's banking sector.

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Socio-economic empowerment of women in Nepal through microfinance services

Pratima Bhusal, MBS, MDC
Bikash Rana, PhD Scholar, KU, Lecturer, MDC

Abstract : *This research investigates the role of microfinance in empowering women economically and socially in rural Nepal. It aims to assess how access to microfinance services affects women's income, savings, asset ownership, decision-making power, and social standing.*
The study follows a descriptive research design, using structured questionnaires to collect primary data from 387 women across various rural districts of Nepal. A simple random sampling technique was applied to ensure representativeness. Statistical analysis, including descriptive statistics, correlation, and regression analysis, was performed using SPSS to examine the relationship between microfinance services and women's empowerment.The findings reveal that microfinance significantly contributes to economic empowerment, with a strong positive correlation between microfinance participation and economic outcomes such as income generation and financial control. Social empowerment also improved, though to a lesser extent. Regression analysis showed that microfinance explains 57% of the variation in economic empowerment and 39.7% in social empowerment. However, barriers like male dominance, limited financial literacy, and cultural norms still hinder full empowerment. The research contributes to the ongoing discourse on gender and financial inclusion by offering fresh empirical evidence from rural Nepal. While previous studies have highlighted microfinance's economic benefits, this study uniquely integrates both economic and social dimensions of empowerment. The findings highlight not only the positive impact of microfinance on women's financial independence but also reveal the persistent challenges, such as male dominance and limited financial literacy, that hinder full social empowerment. It provides valuable insights for policymakers, microfinance institutions, and development practitioners focused on inclusive financial development.
Keywords: Microfinance, Women Empowerment, Economic Empowerment, Social Empowerment, Nepal, Financial Inclusion, Rural Development

Introduction

Microfinance has emerged as a powerful tool for poverty alleviation and women's empowerment, particularly in developing countries like Nepal. Defined as a financial service for low-income individuals excluded from traditional banking, microfinance provides small loans, savings, and insurance to help marginalized communities, especially women, engage in income-generating activities (Kagan, 2024; Barguellil & Bettayeb, 2020).

The concept gained global recognition through Muhammad Yunus's Grameen Bank model, which began in Bangladesh in 1976 and later influenced Nepal's microfinance sector (Dhungana, 2023). Nepal's formal microfinance sector started in the 1950s but expanded significantly after the 1992 financial reforms and the 1997 Microfinance Act, with institutions like Nirdhan Utthan Bank playing a key role in rural financial inclusion (*Models of Microfinance Institutions in Nepal*).

Studies show that microfinance has helped Nepali women increase their income, gain financial independence, and improve household decision-making (Jain, 2020; Thapa & Chowdhary, 2022). Similar trends are seen in other developing nations, such as Ethiopia, where microfinance enhanced women's economic participation (Wondimu et al., 2023), and China, where it supported female entrepreneurship (Pei, 2024). However, despite these benefits, challenges such as over-indebtedness, male control over loans, and cultural barriers persist, limiting its full potential (Lamichhane & Lama, 2023; Choudhary, 2022).

While Nepal's microfinance sector has grown serving over 6 million clients with NPR 300 billion in loans (NRB, 2080) its impact on women's empowerment remains inconsistent. Research in districts like Rautahat and Kanchanpur shows that 65–78% of women experienced improved incomes and social standing after accessing microloans (Thapa & Yadav, 2024; Tiwari, 2023). Those women who access to microfinance institutions can boost confidence, decisive involvement in family and community activities, and ability to address gender injustices. Does simply having access to microfinance guarantee women's empowerment? Yet, many women still lack true financial autonomy, as male family members often control loan usage (UN Women, 2022). In Janakpur, for instance, women's economic activities increased, but decision-making power remained with older men (Choudhary, 2022).

International studies from Pakistan and India further reveal that without male involvement, microfinance can lead to debt stress and domestic conflict (Nawaz, 2019; Rajput & Rajput, 2015). These contradictions raise a critical question: How do microfinance programs affect women's empowerment in rural Nepal, particularly in terms of savings, asset ownership, financial control, independence, decision-making, and social status?

This study is significant because it goes beyond economic metrics to assess microfinance's broader socio-cultural impact on Nepali women. By identifying systemic barriers such as financial illiteracy and patriarchal norms it offers actionable insights for policymakers to design more inclusive programs (Gubhaju, 2023). Additionally, it fills a key research gap by applying empowerment theory (Forgeard, 2024) to Nepal's context, examining whether financial access translates into real agency. While past studies focus on income growth, this research explores how microfinance influences women's autonomy, social status, and household dynamics factors crucial for sustainable development (Nepal, 2023). The findings will not only advance academic discourse but also guide NGOs and microfinance institutions in creating strategies that ensure genuine, long-term empowerment for women in rural Nepal.

Literature review

A literature review is a summary of all the research and writings available on a specific topic. It looks at the key points from different sources like books and academic papers to give a clear idea of what is already known.

Microfinance, originally designed to harness small savings from impoverished individuals, particularly women, has proven to be a powerful tool for economic improvement. It effectively boosts the financial status of its beneficiaries and their families by generating additional income. This extra income enables families to purchase nutritious food, access modern healthcare, and afford education for their children, thereby enhancing their overall quality of life (Adhikari & Shrestha, 2015).

The microfinance serves as a financial service aimed at economically disadvantaged individuals, particularly those who lack access to formal banking institutions. Microfinance institutions provide small, collateral-free loans to help these individuals, often women, start or expand small businesses, thus promoting financial inclusion. The Grameen Bank model is highlighted as a successful approach in rural Nepal, where microfinance has been shown to improve economic conditions, enhance social empowerment, and contribute to better health care and education for families. The need for government and institutional support to further enhance the effectiveness of microfinance in transforming rural communities is also emphasized (Karki et al., 2021). The study looks at how microfinance programs in Nepal help create businesses and generate jobs, especially for the rural poor. These programs aim to empower people socially and economically, use local resources, raise awareness, and promote self-employment. The research found that microfinance has been effective in reducing poverty, with most loans being used for small businesses, livestock, and agriculture. Overall, microfinance has played a key role in helping people start enterprises and create employment opportunities (Pathak & Gyawali, 2012).

The study examines how microfinance initiatives in Punjab, Pakistan, influence women's empowerment by boosting their confidence, business growth, and reducing violence against women (VAW). Using data from the Women Economic & Social Well-being Survey, the study employs logit and probit models to explore the connections between microfinance, women's economic empowerment, and various socio-economic factors. The findings provide new insights for policymakers, suggesting that enhancing microfinance, female employment, and education could significantly contribute to gender equality and the reduction of VAW, particularly in urban areas (Naik et al., 2024). The study examines how microfinance institutions (MFIs) help increase financial access and boost economic growth, especially for low-income and underserved communities. Using an exploratory research design with secondary data, it aims to assess the impact of MFIs on financial inclusion, poverty reduction, and economic development. The study also explores challenges, best practices, and innovations like technology-driven approaches in microfinance. The findings are intended to inform policies and strategies for leveraging microfinance to achieve inclusive and sustainable economic growth (Sangeetha, 2023).

Women’s empowerment is crucial for socio-economic progress, as it is recognized as a key factor in driving global development efforts. Most studies find that microfinance helps women gain more social empowerment and decision-making power. However, some studies argue that these benefits are often undermined by male control over the loans. The statement

shows that research on microfinance and women's empowerment has mixed results. Overall, the majority of the 54 studies reviewed suggest a positive link between microfinance and women's empowerment, although results can vary based on how empowerment is measured and the social context (Khursheed et al., 2021).

The study examines the impact of microfinance on women's empowerment across economic, social, political, and psychological dimensions. Using a quasi-experimental design with control and treatment groups, the findings reveal that microfinance has a significantly positive but moderate impact on economic, political, and psychological empowerment. However, the impact on social empowerment is smaller. Case studies support that microfinance substantially empowers women in all dimensions, with some clarification on the ambiguity surrounding social empowerment (Khan et al., 2023). The study examines the role of microfinance in empowering women economically and socially in Ghana. Using a purposive sample of 500 women from five regions, the research finds a statistically significant positive impact of microfinance on both economic and social empowerment. However, this effect varies based on marital status and education, with no influence from age. Challenges like high-interest rates hinder access to microfinance. The study suggests that enhancing microfinance programs, especially for rural women, could further boost empowerment and poverty alleviation efforts in Ghana (Addai, 2017).

In developed nations, the impact of microfinance on savings and expenditure varies considerably. While some studies indicate modest benefits in terms of financial inclusion, others suggest minimal impacts on the overall financial well-being of clients. For instance, recent literature reviews suggest that the evidence on the strong positive impact of microfinance is inconclusive, often due to methodological weaknesses in studies. Moreover, the focus is gradually shifting from just financial outcomes to include social performance metrics as well, indicating a broader scope of evaluation for microfinance impacts in these regions (Ribeiro et al., 2022).

In developing countries, microfinance has been shown to significantly enhance financial access, leading to better management of savings and expenditure among low-income households. For example, the 2023 Microfinance Index Report highlights improvements in confidence and financial decision-making among borrowers, particularly women. However, the report also notes that a significant portion of clients views their loans as a financial burden, illustrating the complex impact of microfinance in these region. (FinDev Gateway Microfinance Index Report, 2023). The Asian Development Bank (ADB Report, 2012) has reported on the effective role of microfinance in supporting poor families, showing a significant increase in the number of microfinance clients and corresponding job creation. This growth in microfinance usage is attributed to the government's efforts to expand access and improve financial literacy, which has had a substantial impact on poverty reduction and economic empowerment in the country.

Conceptual Framework

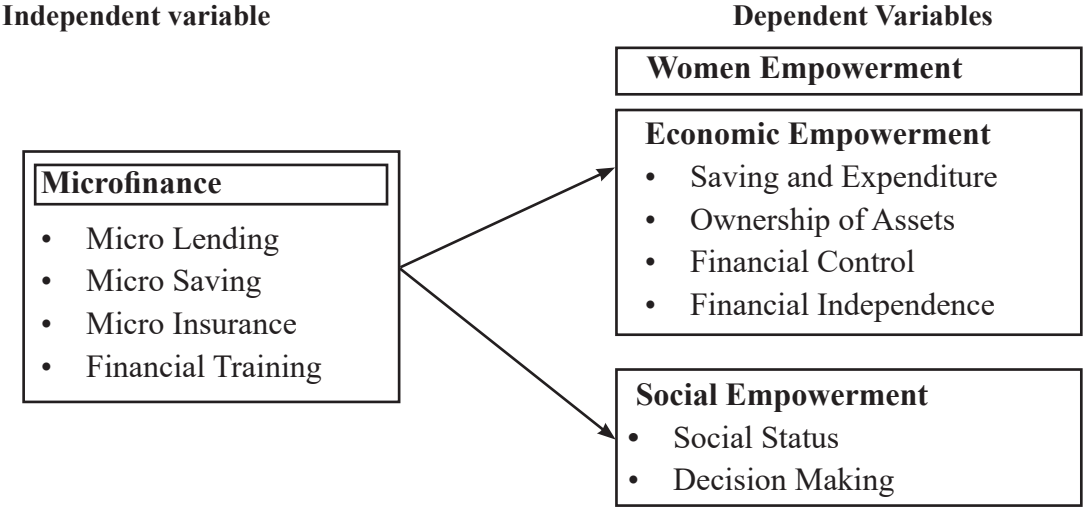

Figure 1*:* Research framework
Source:(Rappaport, 1981)

Hypotheses

- **H_1**: Microfinance significantly contributes to the economic empowerment of women.
- **H_2**: Microfinance significantly contributes to the social empowerment of women.

Research methodology

This study employed a descriptive research design to systematically examine the impact of microfinance programs on women's empowerment in rural Nepal, focusing on economic and social dimensions including savings behavior, asset ownership, financial control, decision-making autonomy, and social status.

The target population comprised all women participating in microfinance programs across Nepal's 5,073 branches, totaling approximately 6,016,073 individuals according to NRB (2023) data. Using Cochran's formula with a 95% confidence level and 5% margin of error, a representative sample size of 387 women was determined to ensure statistical reliability while accounting for population variability.

The sampling process utilized Simple Random Sampling (SRS) technique to eliminate selection bias, where potential respondents were selected through random number generation from complete MFI client lists, guaranteeing each woman an equal probability of inclusion.

Primary data collection involved structured questionnaires using 5-point Likert scales, adapted from established studies, with a pilot test conducted on 5-10% of the sample (n=39) to validate instrument clarity and feasibility. Statistical analysis employed SPSS software, incorporating both descriptive statistics and inferential methods including t-tests and chi-square analyses.

The study framework operationalized two simple regression models to quantify relationships: $Y_1 = \beta_0 + \beta_1 X_1 + \epsilon$ for economic empowerment and $Y_2 = \beta_0 + \beta_1 X_1 + \epsilon$ for social empowerment, where X_1 represented microfinance interventions, β coefficients indicated effect magnitudes, and ϵ accounted for error terms. This comprehensive methodology ensured rigorous examination of microfinance's multidimensional impacts while maintaining ethical standards through informed consent, confidentiality protocols, and institutional review board approval.

Results and discussion

Demographic characteristics of participants

The demographic characteristics of participants in this study include factors such as age, education level, marital status, and income sources from sample 387, which play a crucial role in understanding the socioeconomic empowerment of women through microfinance services in Nepal.

Age of participants

The analysis of age distribution among the participants reveals that the majority (27.4%) fall within the 18–24 years age category, followed closely by 23.5% in the 25–34 years age group. The 35–44 years category accounts for 21.7%, while 18.3% of respondents are between 45–54 years. The smallest representation comes from individuals aged 55 years and above (9.0%).

Table 1 Age of participants

	N	%
18-24 years	106	27.4%
25-34 years	91	23.5%
35-44 years	84	21.7%
45-54 years	71	18.3%
55 years and above	35	9.0%

Source: SPSS 30

Education level of participants

The educational background of participants indicates that a significant proportion (38.8%) have attained at least a bachelor's degree or higher, whereas 21.4% have completed higher secondary education and 15.8% have completed lower secondary level education. However, a notable 9.6% of the respondents lack formal education, which highlights the necessity for financial literacy programs to enhance the effectiveness of microfinance initiatives.

Table 2 Education level of participants

	N	%
No formal education	37	9.6%
Primary education	61	15.8%
Secondary education	56	14.5%
Higher secondary education	83	21.4%
Bachelor's degree or higher	150	38.8%

Source: SPSS 30

Marital status of participants

In terms of marital status, more than half (54.8%) of the respondents are married, while 33.1% identify as single. The remaining participants are either widowed (6.7%) or divorced/ separated (5.4%). This distribution suggests that microfinance institutions cater to a diverse group of women, with a significant portion consisting of married individuals who may seek financial support to enhance household stability and entrepreneurial activities.

Table 3 Marital status of participants

	N	%
Single	128	33.1%
Married	212	54.8%
Widowed	26	6.7%
Divorced/ Separated	21	5.4%

Source: SPSS 30

Employment status of participants

The employment analysis reveals that a large proportion (40.6%) of participants are unemployed, underscoring the critical role microfinance plays in promoting self-employment. Among employed respondents, 27.4% work in the private sector, 22.7% are self-employed, and 9.3% hold government sector jobs. The high unemployment rate highlights the need for financial interventions that empower women economically and foster entrepreneurial ventures.

Table 4 Employment status of participants

	N	%
Employed (Government sector)	36	9.3%
Employed (Private sector)	106	27.4%
Self-employed	88	22.7%
Unemployed	157	40.6%

Source: SPSS 30

Monthly income levels of participants

A majority (51.9%) of the participants report earning less than NPR 20,000 per month, while 32.0% fall within the NPR 20,000–50,000 income bracket. A smaller percentage (13.7%) earn between NPR 50,000–100,000, and only 2.3% exceed NPR 100,000 per month. This income distribution suggests that microfinance predominantly serves lower-income women who seek financial resources to enhance their economic conditions.

Table 5 Monthly income level of participants

	N	%
Less than NPR 20,000	201	51.9%
20,000 - NPR 50,000	124	32.0%

50,000 - NPR 100,000	53	13.7%
More than NPR 100,000	9	2.3%

Source: SPSS 30

Ethnic composition of participants

The ethnic distribution among participants indicates that the majority (49.1%) belong to the Brahmin/Chhetri community, followed by Janajati (20.2%), Dalit (10.9%), Madhesi (8.5%), and Other (11.4%) groups. These findings suggest that while microfinance programs are reaching diverse ethnic communities, additional efforts may be required to ensure equitable financial access to historically marginalized groups.

Table 6 Ethnicity of participants

N	%	
Brahmin/ Chhetri	190	49.1%
Janajati	78	20.2%
Madhesi	33	8.5%
Dalit	42	10.9%
Other	44	11.4%

Source: SPSS 30

Descriptive statistics

The descriptive statistical analysis of the key variables provides a comprehensive overview of microfinance participation and its impact on economic and social empowerment.

Table 7 Statistics

		MF	EE	SE
N	Valid	387	387	387
	Missing	0	0	0
Mean		2.5788	2.5214	2.3750
Median		2.5000	2.4286	2.3333
Std. Deviation		.73374	.82543	.92508
Minimum		1.00	1.00	1.00
Maximum		5.00	4.71	4.78

Source: SPSS 30

The mean analysis shows moderate microfinance participation (MF=2.58) with slightly stronger economic impacts (EE=2.52) than social benefits (SE=2.38), indicating microfinance contributes more to financial stability than social empowerment among participants.

The median values for the variables MF (2.5000), EE (2.4286), and SE (2.3333) confirm that the data distribution is relatively balanced, with most responses clustered around the average values.

Standard deviations show moderate response variability, with social empowerment (0.925) displaying the widest variation - indicating unequal impacts across participants. Microfinance participation (0.734) shows the most consistent engagement levels.

The minimum and maximum values for the variables provide insight into the range of responses. For all three variables, the minimum value is 1.00, indicating that at least some participants reported the lowest level of microfinance involvement, economic empowerment, and social empowerment. Conversely, the maximum values for MF (5.00), EE (4.71), and SE (4.78) demonstrate that some participants reported the highest possible levels of these factors.

Inferential statistics

Inferential statistics is the branch of statistics that focuses on drawing conclusions about populations based on data collected from samples. Tools like hypothesis testing, confidence intervals, regression analysis, and correlation are central to inferential statistics.

Reliability and validity

Table 8 Reliability statistics

Variables	Sub-variable	Alpha (α)	Reliability Level
Microfinance	MLS	0.841	Good
	MSS	0.865	Good
	MIS	0.901	Excellent
	MFT	0.897	Good
Economic Empowerment	EESE	0.863	Good
	EEOA	0.827	Good
	EEFC	0.855	Good
	EEFI	0.885	Good
Social Empowerment	SEDM	0.894	Good
	SESS	0.921	Excellent
Overall Reliability	-	0.961	Excellent

Source: SPSS 30

The reliability analysis confirms that all survey sections demonstrate strong internal consistency, meaning the questions within each group reliably measure the same underlying concept. For the microfinance dimension, all four subscales showed good-to-excellent reliability (α = 0.841-0.901). The microfinance insurance service (MIS, α=0.901) emerged as the most consistent component in this category.

The economic empowerment measures also performed well, with Cronbach's alpha values ranging from 0.827 (EEOA) to 0.885 (EEFI). While all subscales met reliability standards, the Financial Independence (EEFI) proved particularly robust. Notably, the social empowerment dimension achieved the highest reliability scores overall. The social status (SESS, α=0.921) stood out as the most reliable measure across the entire instrument.

The overall reliability coefficient of 0.961 for all items indicates exceptional consistency throughout the complete survey instrument. This high score suggests respondents interpreted questions as intended and responded coherently across all sections.

Validity: To ensure the survey's accuracy and reliability, three validation methods were used. First, expert reviews were conducted to verify question clarity and alignment with study objectives. Second, the survey was cross-checked with previous studies to confirm adherence to established research standards. Finally, a pilot test was conducted with 30 participants (a representative subset of the main study sample) to evaluate question comprehension and effectiveness. Results demonstrated strong reliability, with a Cronbach's Alpha exceeding 0.70**,** indicating consistent measurement of the intended concepts. This comprehensive validation process helped refine the survey instrument prior to full-scale implementation.

Correlation analysis

Table 9 Correlations

	MF	EE	SE
MF	1		
EE	.755**	1	
SE	.630**	.740**	1
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: SPSS 30

Microfinance (MF) and Economic Empowerment (EE) have a strong positive correlation ($r = 0.755$, $p < 0.001$), indicating that women engaged in microfinance tend to experience increased economic empowerment. Microfinance (MF) and Social Empowerment (SE) also have a positive correlation ($r = 0.630$, $p < 0.001$), meaning that as women participate in microfinance, their societal influence and decision-making power improve. Economic Empowerment (EE) and Social Empowerment (SE) show a strong correlation ($r = 0.740$, $p < 0.001$), implying that financially empowered women are more likely to gain social empowerment as well.

Regression analysis

Regression analysis of microfinance service on economic empowerment

The regression analysis examining the impact of microfinance on economic empowerment reveals a strong and statistically significant relationship between the two variables.

Table 10 Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.755[a]	.570	.569	.54221
a. Predictors: (Constant), MF				

Source: SPSS 30

The regression model indicates a strong positive relationship (R = 0.755) between Microfinance (MF) and Economic Empowerment (EE), suggesting that increased participation in microfinance leads to greater financial independence. The R^2 value of 0.570 reveals that 57% of the variation in economic empowerment is explained by microfinance, emphasizing its significant role in improving financial stability. Additionally, the Adjusted R^2 of 0.569 confirms the model's reliability, indicating that even with adjustments, the explanatory power remains strong. The standard error of the estimate (0.54221) suggests a reasonably accurate model fit, reinforcing the effectiveness of microfinance in enhancing women's economic empowerment.

Table 11 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	149.811	1	149.811	509.581	<.001[b]
Residual						
113.185						
385						
.294						
	Total	262.996	386			

a. Dependent Variable: EE

b. Predictors: (Constant), MF

Source: SPSS 30

The ANOVA table focused on model significance and fit. The study reveals that the regression model is statistically significant ($F(1, 385) = 509.581$, $p < .001$), indicating that the predictor variable (MF) significantly explains variance in the dependent variable (EE). The large F-value (509.581) and the extremely low p-value ($p < .001$) suggest that the model fits the data well and that MF has a substantial impact on EE.

The regression sum of squares (149.811) demonstrates that a significant portion of the total variance in EE (262.996) is accounted for by the model, while the residual sum of squares (113.185) represents unexplained variability. These results confirm that the regression model is valid and that MF is a meaningful predictor of EE.

Table 12 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta			
1	(Constant)	.332	.101		3.291	.001
	MF	.849	.038	.755	22.574	<.001

a. Dependent Variable: EE

Source: SPSS 30

The coefficient table explains the direction, strength, and statistical relevance of the predictor. The study provides further insight into the relationship between MF and EE. The unstandardized coefficient for MF (B = 0.849, p < .001) indicates that for every one-unit increase in MF, EE increases by 0.849 units, holding all other factors constant.

The standardized coefficient (Beta = 0.755) suggests a strong positive effect, meaning MF has a substantial influence on EE. Additionally, the intercept (constant = 0.332, p = .001) represents the expected value of EE when MF is zero.

The high t-value (22.574) and extremely low p-value (p < .001) for MF reinforce its statistical significance as a predictor. These findings confirm that MF is not only a significant determinant of EE but also has a strong, positive relationship with it.

Regression analysis of microfinance service on social empowerment

Table 13 Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.630[a]	.397	.396	.71923

a. Predictors: (Constant), MF

Source: SPSS 30

The regression analysis examining the relationship between microfinance services (MF) and social empowerment (SE) yielded statistically significant results. The model summary indicates a moderate positive correlation (R = 0.630), with the predictor variable accounting for approximately 39.7% of the variance in social empowerment ($R^2 = 0.397$). The adjusted R^2 value of 0.396 suggests minimal overfitting, while the standard error of estimate (0.719) demonstrates reasonable predictive accuracy.

Table 14 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	131.173	1	131.173	253.578	<.001[b]
Residual						
199.156						
385						
.517						
	Total	330.329	386			

a. Dependent Variable: SE

b. Predictors: (Constant), MF

Source: SPSS 30

The ANOVA results confirm the overall model's statistical significance ($F(1, 385) = 253.578$, $p < .001$). The regression sum of squares (131.173) relative to the total sum of squares (330.329) indicates that the model explains a substantial portion of the variability in social empowerment. The residual sum of squares (199.156) represents the unexplained variance, suggesting other factors may influence SE beyond microfinance services.

Table 15 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
B		Std. Error	Beta			
1	(Constant)	.326	.134		2.438	.015
	MF	.794	.050	.630	15.924	<.001
a. Dependent Variable: SE						

Source: SPSS 30

The coefficients analysis reveals both the constant and predictor variable are statistically significant. The intercept term ($B = 0.326$, $p = .015$) provides the baseline level of social empowerment when microfinance services equal zero. More importantly, the unstandardized coefficient for MF ($B = 0.794$, $p < .001$) indicates that each unit increase in microfinance services corresponds to a 0.794 unit increase in social empowerment. The standardized beta coefficient ($\beta = 0.630$) confirms a moderately strong positive relationship between these variables.

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Table 16 Result of the hypothesis

Hypothesis	t-value	Test Statistic	p-value	Decision
H1: Microfinance has a significant impact on Economic Empowerment (EE)	22.574	Two-tailed t-test	< 0.001	Accepted (Significant)
H2: Microfinance has a significant impact on Social Empowerment (SE)	15.924	Two-tailed t-test	< 0.001	Accepted (Significant)

The results show that microfinance has a strong positive effect on women empowerment. The t-test results gave a t-value of 22.574 for economic empowerment and 15.924 for social empowerment, with p-values less than 0.001. The t-test results confirm that women who use microfinance services experience better financial stability and more confidence in decision-making. Since the p-values are very small (less than 0.001), the results are considered statistically significant. This means we can trust that microfinance truly helps women become more independent, both financially and socially.

Summary, Conclusion, and Implications of the Study

This study examined how microfinance contributes to the socio-economic empowerment of rural women in Nepal. Despite microfinance's role in poverty reduction, its impact on women's

financial control, asset ownership, decision-making, and social status remained uncertain. Data from 387 diverse women participants revealed that microfinance significantly enhances economic empowerment (savings, expenditure management, asset ownership, and financial independence) and, to a lesser extent, social empowerment (decision-making autonomy and social respect). However, male dominance and cultural norms limited full empowerment for some women.

Microfinance has substantially improved rural women's economic conditions, enabling savings, business ventures, and asset ownership, which boosted their confidence and household influence. Socially, it enhanced women's decision-making and community standing. Yet, persistent gender inequalities and loan control by male relatives hindered universal empowerment. For lasting impact, microfinance must be paired with education, gender-sensitive policies, and community engagement.

This research shows that giving women loans isn't enough they also need financial training to manage money and grow businesses. We must include all women, especially those often left out, like poorer or lower-caste communities. Families, especially husbands and fathers, need to support women's financial freedom instead of controlling their loans. Finally, banks and NGOs should track real empowerment like whether women actually control their money and decisions not just whether loans are repaid. True change happens when women get both financial help and the skills, support, and freedom to use it. In conclusion, this study shows that microfinance has the potential to empower women, but its success depends on the broader environment in which it operates.

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धार्मिक पर्यटनले स्थानीय आर्थिक वृद्धिमा पार्ने असर सम्बन्धी त्रिवेणी धाम र रामग्राम स्तुपामा गरिएको गुणात्मक अध्ययन

मुख्य लेखकः हरिदत्त शर्मा, उप प्राध्यापक, महाकवि देवकोटा क्याम्पस
सह लखकः रामचन्द्र ढकाल, शिक्षक, महाकवि देवकोटा क्याम्पस
सह लेखकः ववि‍न शर्मा, उप प्राध्यापक, महाकवि देवकोटा क्याम्पस

लेखसारः *यस अनुसन्धानले त्रिवेणी धाम र रामग्राम स्तुपालाई केन्द्रमा राखेर नेपालको स्थानीय आर्थिक विकासमा धार्मिक पर्यटनले पार्ने प्रभावको जाँच गर्दछ । स्थानीय समुदायका सदस्यहरु, कम्पनी मालिकहरु साथै पर्यटक सरोकार वालाहरुसंग ३ वटा समूह केन्द्रीत छलफल (ँन्क) र ६ वटा मुख्य सूचनाकर्ता अन्तर्वार्ता (प्क्ष्क) जस्ता गुणात्मक विधिमा अनुसन्धान केन्द्रीत रहेको छ । यस अनुसन्धानले मुख्य रुपमा तीन प्राथमिक विषयवस्तुहरु आर्थिक परि वर्तन, सामाजिक सांस्कृतिक प्रभाव र दिगोपन चुनौतीहरु पहिचान गरेको छ । यस अध्ययनले धार्मिक पर्यटनले कसरी पूर्वाधारमा सुधार गरेको छ, स्थानीय व्यवसायहरुलाई समर्थन गरेको छ र रोजगारीका सम्भावना सिर्जना गरेको छ साथै ती सबैले आर्थिक वृद्धिमा कसरी योगदान पुर्याएको छ भन्ने निष्कर्षहरु निकालेको छ । ठूला व्यवसायहरुले साना व्यवसायहरुले भन्दा बढी लाभ लिएको हुनाले लाभको वितरण अझै असमान छ । उपयुक्त व्यवस्थापन नभएको कारण पर्यटकहरुको आगमनले सांस्कृतिक आदानप्रदान र पूजास्थलको व्यवसायिकरणको समस्या दुबै निम्त्याएको छ । अध्ययनको क्रममा पर्यावरणीय हानी, फोहोर व्यवस्थापन र जनसङ्ख्या वृद्धि जस्ता दिगोपन चिन्ताहरु पनि भेटिएको छ । अध्ययनका अनुसार धार्मिक पर्यटनको धेरै फइदा भए पनि वातावरणीय दिगो पन, सांस्कृतिक संरक्षण र आर्थिक वृद्धिबीच सन्तुलन कायम गर्ने उद्धेश्य सहितका समावेशी नीति निर्माण गर्नु पर्ने देखिन्छ । सिफारिस गरिएका गतिविधिहरु मध्ये पारिस्थितिक पर्यटन पहलहरु, पूर्वाधारको स्तरोन्नती र समान लाभ साझेदारी समावेश छन् । धार्मिक पर्यटनका फाइदा अधिकतम बनाउन यस अनुसन्धानले दीर्घकालीन योजना र सामुदायिक संलग्नताको आवश्यकतालाई उजागर गरेको छ ।*

मुख्य शब्दहरुः *आर्थिक विकास, दिगोपन, धार्मिक पर्यटन, नेपाल, सांस्कृतिक संरक्षण*

परिचय

धार्मिक पर्यटन, पर्यटन उद्योगको महत्वपूर्ण तर प्रायः कम अनुसन्धान गरिएको पक्ष हो जसले आर्थिक, सामाजिक र सांस्कृतिक विकासमा महत्वपूर्ण योगदान पुर्याउँछ (रिन्स्चेड,१९९२ र टिमोथी र ओल्सेन, २००६) । विश्वव्यापी घटनाको रुपमा धार्मिक पर्यटनले वार्षिक लाखौं तिर्थ यात्रीलाई पवित्र स्थलहरुमा आकर्षित गर्दछ, जसले स्थानीय व्यवसायहरुलाई बढावा दिन्छ, रोजगारी सिर्जना गर्दछ र पूर्वाधार विकासलाई बढावा दिन्छ (कोलिन्स-क्रेनर, २०१०) । नेपालमा देशको समृद्धि आध्यात्मिक सम्पदा र हिन्दु धर्म, बौद्ध धर्म र अन्य आदिवासीहरुको धार्मिक परम्पर ाहरुमा फैलिएका पवित्र स्थलहरुको विविध दायराको कारणले धार्मिक पर्यटनको विशेष महत्व छ (न्यौपाने, टिमोथी र पौडेल, २०१५) । यद्यपी आर्थिक वृद्धिको लागि यसको सम्भावनाको बाबजुद, विशेष गरी स्थानीय समुदायहरुमा

यसको मूर्त आर्थिक प्रभावको बारेमा धार्मिक पर्यटनले सिमित विद्धानहरुको ध्यान प्राप्त गरेको छ (कुँवर, २०१७) ।

यो अनुसन्धान मूलक लेख रामग्राम स्तुप र त्रिवेणी धाम जस्ता नेपालका दुई महत्वपूर्ण धार्मिक स्थलहरुमा केन्द्रीत छ । नवलपरासी जिल्लाको रामग्राम नगरपालिका अन्तर्गत उजैनी भन्ने ठाउँमा अवस्थित रामग्राम स्तुप ऐतिहासिक तथा धार्मिक रुपमा निकै महत्वपूर्ण छ किनभने यो भगवान गौतम बुद्धको एक मात्र अछुतो अवशेष स्तुप मानिन्छ (रिजाल, २०१९) । युनेस्कोको अस्थायी सम्पदा स्थलको रुपमा यसको अवस्थिति भए पनि लुम्बिनी र अन्य बौद्ध स्थलहरुको तुलनामा यो स्तुप तिर्थस्थलको रुपमा विकास हुन सकेको देखिँदैन । त्यसै गरी त्रिवेणी धाम गण्डकी, सोना र तमसा नदीको संगममा अवस्थित एक महत्वपूर्ण हिन्दू तीर्थस्थल हो । विशेष गरी माघे सक्रान्ति साथै माघ महिना भरी गरिने मकर स्नानको माध्यमबाट धर्म र मोक्ष प्राप्तिको लागि हजारौँ भक्तजनहरु यस स्थानमा आउने गर्दछन् (शर्मा,२०२०) । धार्मिक महत्वका बाबजुद पनि दुवै स्थलहरुले वरपरका समुदायको दिगो आर्थिक विकासलाई बढावा दिने सम्भावना देखिन्छ ।

यस अध्ययनको उद्धेश्य रामग्राम स्तुप र त्रिवेणी धामको धार्मिक पर्यटले कसरी स्थानीय समुदायको सामाजिक आर्थिक विकासमा योगदान पुर्याउँछ भन्ने रहेको छ । गुणात्मक अनुसन्धान पद्धतिको आधारमा गरिएको यो अनुसन्धानले यी दुवै स्थानहरुमा धार्मिक पर्यटनको आर्थिक लाभ, चुनौती र प्रयोग नगरिएको सम्भावनाको अन्वेषण गर्दछ । स्थानीय सरोकारवालाहरु, व्यवसाय मालिकहरु, धार्मिक नेताहरु र नीति निर्माताहरुसँग गहन अन्तर्वार्ता लिएर यो लेख तयार पारिएको छ । यो अध्ययनले धार्मिक पर्यटनले जिविकोपार्जन, रोजगारीका अवसरहरु र सामुदायिक कल्याणलाई कसरी आकार दिन्छ भन्ने बारे अनुभव जन्य बुझाइ प्रदान गर्ने प्रयास गरेको छ ।

समस्या कथन

स्थानीय आर्थिक विकासमा धार्मिक पर्यटनले खेल्ने महत्वपूर्ण भूमिकाको बाबजुद पनि नेपालका धार्मिक स्थलहरु प्रायः कमजोर पूर्वाधार, प्रवर्द्धनको अभाव र अप्रयाप्त नीतिगत सहयोगबाट पिडित छन् (कुँवर, २०१७ र सिंह, २०१३) । विश्वका अन्य भागहरुमा धार्मिक पर्यटनको आर्थिक योगदान व्यापक रुपमा रहेको विभिन्न अध्ययनले देखाएको छ (कोलिन्स-क्रेनर, २०१० र शार्पली - सुन्दरम, २००५) । नेपालका महत्वपूर्ण धार्मिक स्थलहरु विशेष गरी लुम्बिनी पशुपतिनाथको बारेमा अझै पनि व्यापक अध्ययन गरिएका छैनन् (रिजाल, २०१९) । रामग्रम स्तुप र त्रिवेणी धाम पनि त्यस मध्येको उदाहरण हो जसको धार्मिक महत्वको बारेमा अध्ययन भएको छैन् । यी दुवै स्थलहरुको धार्मिक र ऐतिहासिक महत्व छ तर तिनीहरुको आर्थिक लाभलाई अधिकतम बनाउन आवश्यक रणनैतिक विकासको अभाव देखिन्छ ।

पूर्वाधारको अभाव, सिमित पर्यटन सेवाहरु र मौसमी तीर्थयात्रा प्रवाहले स्थानीय व्यवसायीहरुको धार्मिक पर्यटन फस्टाउन सक्ने क्षमतामा बाधा पुर्याएको देखिन्छ । यस बाहेक पर्यटनले आर्थिक अवसरहरु सिर्जना गर्दछ तर धार्मिक अभ्यासहरुको व्यवसायिकरण, सम्भावित सांस्कृतिक परिवर्तनहरु र वातावरणीय क्षय जस्ता चुनौतीहरु पनि प्रस्तुत गर्दछ (न्यौपाने एट अल, २०१५ र टिमोथी, २०१८) धार्मिक पर्यटनको विकास र व्यवस्थापनको लागि व्यवस्थित दृष्टिकोण बिना यी पवित्र स्थलहरुको कम उपयोग र अनुचित व्यवस्थापन हुने जोखिम हुन्छ, जसले गर्दा स्थानीय समुदायहरुले उनीहरुको आर्थिक क्षमताबाट पूर्णरुपमा लाभ उठाउन सक्दैनन् (सिंह, २०१३) ।

यो अध्ययनले रामग्राम स्तुप र त्रिवेणी धामको धार्मिक पर्यटनले स्थानीय अर्थतन्त्र, रोजगारी परिदृश्य र पूर्वाधार विकासलाई असर गर्दछ । यसले नीति निर्माताहरु, पर्यटन सरोकारवालाहरु र स्थानीय अधिकारीहरुलाई आर्थिक लाभ र सांस्कृतिक संरक्षणलाई सन्तुलनमा राखेर दिगो पर्यटन मोडेलहरु कसरी सिर्जना गर्ने भन्ने बारेमा व्यवहारिक अन्तर्दृष्टि प्रदान गर्ने पयास गर्दछ ।

अनुसन्धान प्रश्नहरु

१. रामग्राम स्तुप र त्रिवेणी धाममा कसरी धार्मिक पर्यटन विकास हुन्छ ? स्थानीय आर्थिक विकासमा यसले कस्तो योगदान पुर्याउँछ ?
२. स्थानीय समुदायहरुमा धार्मिक पर्यटनको सामाजिक, सांस्कृतिक र आर्थिक प्रभाव कस्तो रहेको छ ?
३. स्थानीय व्यवसाय, रोजगारीका अवसरहरु र पूर्वाधार विकास धार्मिक पर्यटन गतिविधिहरुसंग कसरी सम्बन्धीत छन् ?
४. सांस्कृतिक सम्पदाको संरक्षण र दिगोपन सुनिश्चित गर्दै धार्मिक पर्यटनको आर्थिक लाभलाई अधिकतम बनाउन कस्ता चुनौती र अवसरहरु छन् ?

यस्ता प्रश्नहरुको उत्तर दिएर यस अनुसन्धानले धार्मिक पर्यटनको आर्थिक महत्वको अनुभव जन्य प्रमाण प्रदान गर्ने र नेपालका धार्मिक सम्पदा स्थलहरुमा दिगो पर्यटन विकासको लागि सिफारिसहरु प्रदान गर्ने लक्ष्य राखेको छ।

साहित्य समिक्षा

धार्मिक पर्यटनले स्थानीय अर्थतन्त्र र सांस्कृतिक परिदृश्यलाई उल्लेखनीय रुपमा प्रभाव पार्दछ, विशेष गरी नेपाल जस्ता देशहरुमा जहाँ आध्यात्मिकता र सम्पदा गहिरो रुपमा अन्तर्निहित छन्। यस समिक्षाले स्थानीय सरोकार वालाहरुबाट गुणात्मक अन्तर्दृष्टिमा केन्द्रीत हुँदै धार्मिक पर्यटनसंग सम्बन्धीत आर्थिक योगदान, सामाजिक सांस्कृतिक गतिशिलता, चुनौतीहरु र दिगो अभ्यासहरुको जाँच गर्दछ। **दिगो जीविकोपार्जन फ्रेमवर्क** (SLF) चेम्बर्स एण्ड कन्वे,१९९२) मा आधारित छ, जसले धार्मिक पर्यटनले स्थानीय आर्थिक विकासमा कसरी योगदान पुर्याउन सक्छ भनेर बुझ्नको लागि लेन्स प्रदान गर्दछ। वीं विशेष गरी समुदाय भित्रका विभिन्न प्रकारका पूजिँ- प्राकृतिक, मनवीय, वित्तिय, सामाजिक र भौतिक बीचको अन्तर्क्रियाको विश्लेषणको लागि सान्दर्भिक छ। धार्मिक पर्यटनको सन्दर्भमा यी राजधानिहरुलाई जीविकोपार्जन दिगो बनाउन र सामाजिक आर्थिक कल्याण सुधार गर्न महत्वपूर्ण मानिन्छ(एशले एण्ड रो,२००२)

रामग्राम स्तुप र त्रिवेणी धाम जस्ता धार्मिक स्थलहरुको सामुदायिक विकासको लागि बहुमार्गहरु सिर्जना गर्दछ। वीं ले स्थानीय समुदायहरुले आफ्नो जीविकोपार्जन बढाउन पूँजिको कसरी प्रयोग गर्दछन् भन्ने कुरालाई प्रकाश पार्दछ। उदाहरणका लागि आतिथ्य र सेवा क्षेत्रहरुमा स्थानीय रोजगारी सिर्जना गरेर मानव पूँजि विस्तार गरिन्छ, जबकी वित्तिय पूँजि तीर्थयात्रा सम्बन्धीत वाणिज्य र आवास सेवाहरु जस्ता व्यवसायिक गतिविधिहरु मफूर्त उत्पन्न गरिन्छ। थप रुपमा यस ढाँचाले धार्मिक सम्पदाको संरक्षण र प्रवर्द्धन गर्न समुदाय संचालित पहलहरु जस्ता सामूहिक कार्यलाई सहज बनाउन सामाजिक पूँजिको महत्वलाई जोड दिन्छ (कार्नी, १९९८)

वीं ले दिगोपनलाई पनि जोड दिन्छ - नेपालमा धार्मिक पर्यटनको लागि एक आवश्यक विचार, जहाँ अत्याधिक पर्यटनले सांस्कृतिक अभ्यास र सम्पदा स्थलहरुको प्रमाणिकतालाई खतरामा पार्न सक्दछ , वीं प्रयोग गरेर यो अध्ययनले धार्मिक स्थलहरुमा धार्मिक पर्यटनले स्थानीय समुदायहरुको लागि दिगो आर्थिक परिणामहरु निम्त्याउँदैछ कि छैन भनेर मूल्याङ्कन गर्दछ, विशेष गरी आयविविधिकरण, क्षमता निर्माण र प्राकृतिक प्रकोप वा राजनीतिक अस्थिर ता जस्ता बाह्य झटकाको बिरुद्ध लचिलोपनको सन्दर्भमा महत्वपूर्ण दृष्टिकोण प्रदान गर्दछ (एलिस,२०००)

वीं को दृष्टिकोणबाट, यस अनुसन्धानले सांस्कृतिक र वातावरणीय स्रोतहरुको संरक्षणको आवश्यकतालाई सन्तुलनमा राख्दै धार्मिक पर्यटनले स्थानीय समुदायहरुको सामाजिक आर्थिक उत्थानमा कसरी योगदान पुर्याउँछ भनेर अन्वेषण गर्ने लक्ष्य राखेको छ। यो सैद्धान्तिक दृष्टिकोणले पर्यटनमा संलग्न हुँदा यी समुदायहरुले सामना गर्ने चुनौती र अवसर हरुको गहन विश्लेषण गर्न पनि अनुमति दिन्छ।

धार्मिक पर्यटनको आर्थिक प्रभाव

धार्मिक पर्यटनले रोजगारी सिर्जना गरेर उद्यमशीलतालाई बढावा दिन्छ र पूर्वाधार बृद्धि गरेर आर्थिक विकासको लागि उत्प्रेरकको रुपमा काम गर्दछ। तिर्थयात्रीहरु प्राय लामो समयसम्म बस्दछन् साथै आवास, खाना र कलाकृतिहरुमा खर्च गर्दछन् जसले गर्दा स्थानीय अर्थतन्त्रलाई उत्प्रेरित पार्दछ (शिन्दे, २०१२) । नेपालमा लुम्बिनी र पशुपतिनाथ जस्ता प्रमुख स्थलहरुले पर्यटनबाट प्रयाप्त लाभ अनुभव गरेका छन् (न्यौपाने, तिमोथी र पौडेल, २०१५) । यद्यपी रामग्राम स्तुप र त्रिवेणी धाम जस्ता साना तर महत्पूर्ण स्थलहरुको आर्थिक सम्भावनाको बारेमा विस्तृत रुपमा अध्ययन गरिएको छैन (रिजाल, २०१९) अवस्थित साहित्यले मुख्य रुपमा पर्यटन राजस्वको बारेमा मूल्याङ्कन गर्न मात्रात्मक विधि प्रयोग गर्दछ । प्राय स्थानीय विक्रेताहरु, तिर्थयात्रीहरु र समुदायका सदस्यहरुको गुणात्मक अनुभवहरुलाई बेवास्ता गर्दछ (शिन्दे, २०१८) । यस अध्ययनले यी जीवित अनुभवहरु र सरोकारवालाका दृष्टिकोणहरुको अन्वेषण गरेर यो खाडललाई पूरा गर्ने लक्ष्य राखेको छ।

सामाजिक सांस्कृतिक गतिशीलता

धार्मिक पर्यटनले सम्पदा संरक्षणलाई प्रवर्द्धन गरेर, सामाजिक आदानप्रदानलाई सहज बनाएर, सामुदायिक संलग्नतालाई प्रोत्साहन गरेर सामाजिक सांस्कृतिक पक्षहरुलाई प्रभाव पार्दछ। तिर्थस्थलहरु प्राय विश्वास, वाणिज्य र पहिचानको मिलन केन्द्र बन्दछन् (कोलिन्स र क्रेनर,२०१०) । उदाहरका लागि नेपालमा गढीमाई पर्व, पशु बली वरिपरि विवादहरुको बावजुद धेरै तिर्थ यात्रीहरुलाई आकर्षित गर्दछ जसले परम्परा र पर्यटन बीचको जटिल अन्तर्क्रियालाई जोड दिन्छ।

पर्यटनले मन्दिरहरुको पुनर्स्थापना र अनुष्ठानहरुको पुनरुत्थान निम्त्याउन सक्छ (सिंह, २०१३) यसले पवित्र स्थलहरुको व्यवसायिकरण पनि गर्न सक्छ जसले गर्दा सांस्कृतिक प्रामाणिकतामा सम्भावित कमी आउन सक्छ (राज र ग्रिफिन, २०१७) । स्थानीय समुदायहरुले यी सांस्कृतिक परिवर्तनहरुमा कसरी अनुकूल गर्दछन् भन्ने बारेमा अनुसन्धान, विशेष गरी कम ज्ञात धार्मिक स्थलहरुमा अझै पनि सिमित छ (सिंह,२०१३) । यो अध्ययनले स्थानीय धारणा र विकति हुँदै गइरहेको सांस्कृतिक अभ्यासहरुको प्रत्यक्ष विवरण प्रदान गर्ने प्रयास गर्दछ।

धार्मिक पर्यटन विकासमा चुनौतीहरु

सम्भावना भएता पनि, नेपालमा धार्मिक पर्यटनले पूर्वाधारको कमी, शासन समस्या र वातावरणीय चिन्ता जस्ता चुनौतीहरुको समाना गरिरहेको छ। उदाहरणको लागि पनौतीले धार्मिक स्मारकहरुको पुनर्निर्माण र पूर्वाधार सुधार गर्ने कार्यक्रमहरु कार्यान्वयन गरेको छ जसको उद्धेश्य पर्यटन र समाजिक आर्थिक स्तर बढाउनु हो । त्यस्तै १९९२ मा मात्र विदेशीहरुका लागि खुला गरिएको मुस्ताङ जिल्लाले अहिले हजारौँ पर्यटकहरुलाई आकर्षित गर्दछ तर स्थानीय परम्परा र वातावरण संरक्षण गर्न भ्रमण नियमन गरिएको छ। यद्यपी धेरै स्थलहरुमा प्रयाप्त पर्यटन सुविधाको अभाव छ जसले पहुँच र आगन्तुक सन्तुष्टिलाई सिमित गर्दछ (न्यौपाने एट अल, २०१५ र रिजाल, २०१९) । केन्द्रीकृत निर्णय लिने जस्ता शासन मुद्धाहरुले प्राय स्थानीय समुदायहरुलाई पर्यटन योजनाबाट बहिस्कार गर्दछ जसले गर्दा स्थानीय आवस्यकता र ज्ञानको एकीकरणमा बाधा पुग्दछ (टिमोथी, २०१८) । थप रुपमा बढ्दो पर्यटन गतिविधिहरुबाट वातावरणीय चिन्ताहरु उत्पन्न हुन्छन्, जसले प्राकृतिक र सांस्कृतिक स्रोतहरुको संरक्षण गर्न दिगो अभ्यास आवश्यक पर्दछ । बृहत स्तरीय शासन मुद्धाहरु दस्तावेजीकरण गरिएको भएता पनि स्थानीय उद्यमीहरु र सरोकारवालाहरुको अनुकूल रणनीतिहरु कम अन्वेषण गरिएकोछ (सिंह,२०१३) । यो अध्ययनले यी चुनौतीहरुको लागि ग्रासरुट स्तर समाधानहरुको जाँच गर्दछ।

धार्मिक पर्यटनमा दिगो अभ्यासहरु

धार्मिक पर्यटनमा दिगोपन प्राप्त गर्न सांस्कृतिक र वातावरणीय संरक्षणसँग आर्थिक लाभको सन्तुलन आवश्यक छ। समुदायमा आधारित पर्यटन पहलहरुले स्थानीयहरुलाई सम्पदा व्यवस्थापन र पर्यटन योजनामा सशक्त बनाउँछ र दीर्घकालीन लाभहरु सुनिश्चित गर्दछ (टिमोथी, २०१८)। उदाहरणका लागि सगरमाथा क्षेत्रमा पर्यटन मैत्री पदयात्रा अभ्यासहरुले सांस्कृतिक विसर्जन र दिगोपनलाई जोड दिन्छन् र वातावरणीय प्रभावलाई कम गर्दै स्थानीय समुदायहरुलाई समर्थन गर्दछन्।

परम्परागत रितिरिवाजलाई आधुनिक पर्यटन अनुभवहरुसँग एकिकृत गर्नाले प्रमाणिकता र आर्थिक मूल्य बढाउन सक्छ (कोलिन्स-क्रेनर, २०१०)। यद्यपी रामग्राम जस्ता साना धार्मिक स्थलहरुको लागि दिगो पर्यटन मोडेलहरुको अनुकूलन अझै पनि कम अन्वेषण गरिएको छ। यो अध्ययनले दिगो धार्मिक पर्यटनको लागि अुनकूलित समुदाय संचालित दृष्टिकोणहरुको अनुसन्धान गर्दछ।

रामग्राम स्तुप र त्रिवेणी धाम जस्ता स्थलहरुको आर्थिक सामाजिक सांस्कृतिक विकासमा धार्मिक पर्यटनको भूमिकामा आधारभूत दृष्टिकोण प्रदान गर्ने लक्ष्य राखेको छ। नीति निर्माता पर्यटन योजनाकार र स्थानीय सरोकार वालाहरुलाई सान्दर्भिक अन्तर्दृष्टि प्रदान गर्दछ।

कार्यप्रणाली

यस अनुसन्धानले स्थानीय आर्थिक विकासमा धार्मिक पर्यटनको भूमिकाको अन्वेषण गर्न गुणात्मक अनुसन्धान विधि प्रयोग गर्दछ जुन रामग्राम स्तुप र त्रिवेणी धाममा केन्द्रीत छ। गुणात्मक दृष्टिकोण विशेष गरी धार्मिक पर्यटनबाट उत्पन्न हुने मानवीय अनुभव, धारणा र सामाजिक आर्थिक परिवर्तनहरुको गहन अन्वेषण गर्न विशेष उपयुक्त छ। धार्मिक पर्यटनको प्रभाव आर्थिक तथ्याङ्क भन्दा बाहिर सांस्कृतिक सामाजिक र शासन आयामहरु समावेश गर्न फैलिएको हुनाले गुणात्मक विधिहरुले अझ शुक्ष्म र सन्दर्भगत रुपमा समृद्ध समझलाई सक्षम बनाउँछ (क्रेसवेल र पोथ, २०१८)।

यो अनुसन्धानले प्राथमिक तथ्याङ्क संकलन गर्न फोकस समूह छलफल(FGDs) र प्रमुख सूचनादाता अन्तर्वार्ता (KIIS) प्रयोग गर्दछ। FGDs ले अन्तर्क्रियात्मक छलफलहरु प्रदान गर्दछ जहाँ सहभागिहरुले धार्मिक पर्यटनको आर्थिक प्रभावको बारेमा आफ्ना अनुभव र धारणा स्वतन्त्र रुपमा व्यक्त गर्न सक्दछन्। यी छलफलहरुमा स्थानीय व्यवसाय मालिकहरु, तिर्थयात्रीहरु, धार्मिक नेताहरु, समुदायका प्रतिनिधिहरु र पर्यटन व्यवसाय संचालकहरु समावेश छन्। प्रत्येक FGD मा ६ देखि ८ सहभागीहरु हुन्छन् जसलाई उद्धेश्यपूर्ण नमुना मार्फत् छनौट गरिन्छ जसले विविध तर सान्दर्भिक प्रतिनिधित्व सुनिश्चित गर्दछ (ब्राइम्यान, २०१६) FGDs ले सामूहिक कथाहरु खिच्न र व्यक्तिगत अन्तर्वार्ताहरुमा नदेखिने समुदाय संचालित अन्तर्दृष्टिहरु उजागर गर्न मद्धत गर्दछ। प्रमुख सूचनादाता अन्तर्वार्ताहरुले पर्यटन सम्पदा संरक्षण र स्थानीय शासनमा विशेष ज्ञान भएका व्यक्तिहरुबाट विशेषज्ञ दृष्टिकोण प्रदान गरेरँन्म हरुलाई पुरक बनाउँछन्। यी अन्तर्वार्ताहरुले अर्धसंरचित ढाँचा पछ्याउँछन् जसले नगरपालिका अधिकारीहरु, सम्पदा स्थल प्रबन्धकहरु, धार्मिक नेताहरु र पर्यटन विकास बोर्डका सदस्यहरु जस्ता उत्तरदाताहरुलाई आर्थिक लाभ शासन चुनौतीहरु र दिगोपन सरोकारहरुमा विस्तृत रुपमा विस्तार गर्न अनुमति दिन्छ (प्याटन,२०१५)। प्क्ष हरुले अध्ययन क्षेत्रमा धार्मिक पर्यटनको वृद्धि र दिगोपनलाई प्रभाव पार्ने संरचनात्मक र नीति सम्बन्धीत पक्षहरुको गहिरो अन्तर्दृष्टि प्रदान गर्दछ। गुणात्मक तथ्याङ्कको विश्लेषण गर्न ब्राउन र क्लार्कको (२००६) ६ चरण ढाँचामा आधारित विषयगत विश्लेषण दृष्टिकोण प्रयोग गरिन्छ। प्रक्रिया ट्रान्सक्रिप्टहरुको बारम्बार पढाइ मार्फत् तथ्याङ्कसँग परिचित भएर सुरु हुन्छ। त्यस पछि मुख्य वाक्यांशहरु र विषयवस्तुहरुको व्यवस्थित कोडिङ गरिन्छ। आवर्ती ढाँचाहरुलाई

आर्थिक योगदान, सांस्कृतिक संरक्षण, शासन मुद्धाहरु र दिगोपन सरोकारहरु जस्ता व्यापक विषयगत क्षेत्रहरुमा पहिचान र वर्गिकृत गरिन्छ। Nvivo सफ्टवेयर गुणात्मक तथ्याङ्क व्यवस्थापन र कोड गर्न प्रयोग गरिन्छ। विभिन्न सरोकारवाला दृष्टिकोणहरुमा पुनरावर्ती ढाँचाहरु र अन्तरसम्बन्धहरुको संरचित परीक्षणलाई सहज बनाउँछ।

नैतिक विचारहरु अनुसन्धानको अभिन्न अङ्ग हुन। अध्ययनको उद्धेश्य स्वैच्छिक सहभागिता र कुनै पनि समयमा फिर्ता लिने अधिकारको बारेमा स्पष्ट स्पष्टिकरण सहित सबै सहभागिहरुबाट सूचित सहमति प्राप्त गरिन्छ। ट्रान्सक्रिप्टहरु गुमनाम राखेर, डिजिटल रेकर्डहरु सुरक्षित गरेर गोपनियता कडाइका साथ कायम गरिन्छ। अध्ययनले गुणात्मक पर्यटन अनुसन्धानको लागि स्थापित नैतिक दिशानिर्देशहरुको पालना गर्दछ। सांस्कृतिक संवेदनशीलता र धार्मिक परम्पराहरुको सम्मान सुनिश्चित गर्दछ (ट्रेसी, २०२०)। यो पद्धतिगत दृष्टिकोण छनौट गर्नुको उद्धेश्य धार्मिक पर्यटनले स्थानीय अर्थतन्त्रलाई कसरी प्रभाव पार्दछ, समुदायिक सहभागितालाई बढावा दिन्छ र दिगो विकासलाई कसरी प्रभाव पार्दछ भन्ने बारेमा समग्र गहन बुझाइ प्रदान गर्ने क्षमतामा निहित छ। FGD ले सामुहिक अनुभवहरु साझा चुनौतीहरुको अन्वेषण सक्षम बनाउँछ जबकी प्क्ष्क ले महत्वपूर्ण नीति र शासन अन्तदृष्टि प्रदान गर्दछ। विषयगत विश्लेषण ढाँचाले तथ्याङ्कको समृद्ध सन्दर्भगत रुपमा आधारित व्यख्याको लागि अनुमति दिँदै निष्कर्षहरु व्यवस्थित रुपमा वर्गिकृत गरिएको सुनिश्चित गर्दछ। यी गुणात्मक विधिहरु प्रयोग गरेर यस अध्ययनले रामग्राम स्तुप र त्रिवेणी धामको सन्दर्भमा धार्मिक पर्यटनले आर्थिक र सामाजिक रुपान्तरणमा योगदान पुर्याउने तरिकाहरुको व्यापक जाँच गर्दछ।

तथ्याङ्क विश्लेषण

रामग्राम स्तुप र त्रिवेणी धाम वरपरको स्थानीय अर्थतन्त्रलाई पुनर्निर्माण गर्न धार्मिक पर्यटनले महत्वपूर्ण भूमिका खेलेको छ। अधिकांश उत्तरदाताहरुले तिर्थयात्रीहरुको निरन्तर आगमनका कारण व्यापारिक अवसरहरुमा भएको वृद्धिलाई जोड दिए। एक स्थानीय होटल मालिकले *"पहिला चाडपर्वको समयमा हामीसँग थोरै मात्र आगन्तुकहरु थिए तर अब बढदो धार्मिक पर्यटनसँगै हाम्रा नियमित ग्राहकहरु छन् र हाम्रो आम्दानी पनि स्थिर भएको छ"* भन्ने विचार खुलासा गरे। धेरै सडक व्यापारीहरुले पनि यो कुरालाई सहमति जनाए जसले धार्मिक स्मृति चिन्ह र परम्पर गत खाद्य बस्तुहरु खोज्ने तिर्थयात्रीहरुको निरन्तर प्रवाहका कारण उनीहरुको दैनिक आम्दानी बढेको उल्लेख गरे।

त्यस्तै स्थानीय यातायात व्यवसायमा उल्लेखनीय सुधार देखिएको छ। एक रिक्सा चालकले भने *"पहिला यात्रुहरु खोज्न मुख्य शहरमा यात्रा गर्नु पर्दथ्यो अब तिर्थयात्रीहरुलाई सधैं यातायात चाहिन्छ र म मेरो गाउँ नछोडिकनै धेरै राम्रो कमाउँछु।"* यो परिवर्तनले धेरै स्थानीयहरुलाई मौसमी कृषि कामबाट थप स्थिर र लाभदायक पेशाहरुमा सार्न अनुमति दिएको छ।

नगरपालिकाका एक जानकारीकर्ताले धार्मिक पर्यटनको अप्रत्यक्ष फाइदाहरुमाथि प्रकाश पार्दै भने *"बढ्दो पर्यटनलाई समायोजन गर्न थप लज र सडक निर्माण भएकाले होटल वा यातायात सेवाहरुमा मात्र नभई निर्माणमा पनि रोजगारी सिर्जना हुन्छ।"* यस पूर्वाधार विकासको फलस्वरुप जग्गाको मूल्य बढाएको छ र स्थानीय अर्थतन्त्रमा थप लगानीलाई प्रोत्साहन गरेको छ।

यद्यपी धेरै सहभागीहरुले धार्मिक पर्यटनलाई आर्थिक उत्प्रेरकको रुपमा हेरे तापनि केहीले लाभहरु कसरी वितरण गरियो भन्ने असमानतालाई हाइलाइट गरे। एक पसलेले भने *"ठूला होटल र टुर अपरेटरहरुले सबै भन्दा धेरै पैसा कमाउँछन् जबकी हामी जस्ता साना विक्रेताहरु ऋभै पनि संघर्ष गरि रहेका छौं। साना व्यवसायहरु बढ्न मद्धत गर्न हामीलाई सर कारबाट राम्रो सहयोग चाहिन्छ।"* यसले के संकेत गर्दछ भने धार्मिक पर्यटनले स्थानीय जीविकोपार्जनमा सकारात्मक प्रभाव पारेको छ तर समानलाभ सुनिश्चित गर्न अझै पनि चुनौतीहरु रहेका छन्।

धार्मिक पर्यटनको सामाजिक सांस्कृतिक प्रभावहरु

आर्थिक परिवर्तनहरु भन्दा बाहिर धार्मिक पर्यटनले यी धार्मिक स्थलहरु वरपरका समुदायका सामाजिक संरचनमा गहिरो प्रभाव पारेको छ। धेरै सहभागीहरुले सांस्कृतिक गौरव र सामुदायिक संलग्नताको बढ्दो भावनाको वर्णन गरे। एक स्थानीय अग्रजले भने *"पर्यटकहरुको कारणले हाम्रा परम्परा र रीतिरिवाजहरुले बढी मान्यता पाएका छन्। अब युवाहरुले पनि हाम्रो धार्मिक सम्पदाको बारेमा सिक्न बढी चासो लिइरहेका छन्।"* धार्मिक नेताहरुले स्थानीय विश्वास अभ्यासहरुको सुदृढिकरण पनि अवलोकन गरे किनकी आध्यात्मिक पर्यटनको बढ्दो सम्पर्कले लोप हुँदै गएका केही समारोहहरुको पुनरुत्थान भएको छ।

यद्यपी पर्यटकहरुको आगमनले सांस्कृतिक तनाव पनि सिर्जना गरेको छ। केही वृद्धा उत्तरदाताहरुले पवित्र स्थलहरुको व्यवसायिकरणको बारेमा चिन्ता व्यक्त गरे। एक पुजारीले टिप्पणी गरे *"यी स्थानहरु भक्तिका लागि हुन् तर कहिलेकाहीँ तिनीहरु व्यापारिक केन्द्रहरु जस्तै महशुस गर्दछन्। व्यवसायिक स्वार्थहरुले आध्यात्मिकतालाई ओझेलमा मारिरहेको छ।"* धार्मिक पवित्रता र आर्थिक स्वार्थहरु बीचको यो तनाव धेरै सम्पदा पर्यटन स्थलहरुमा बारम्बार देखिने विषय हो।

यसका साथै बाह्य आगन्तुकहरुको आगमनले सांस्कृतिक आदानप्रदानमा वृद्धि भएको छ जसलाई कतिपयले सकारात्मक रुपमा हेर्छन् भने कतिपयले बाधा पुर्याउँछन्। होमस्टे पर्यटनमा संलग्न एक स्थानीय महिलाले भनिन् *"हामी पर्यटकहरुबाट जीवनका विभिन्न तरिकाहरु बरे धेरै कुरा सिक्छौँ र उनीहरुले हाम्रा रीतिरिवाजहरुलाई पनि सम्मान गर्दछन् तर केही आगन्तुकहरुले आधारभूत धार्मिक शिष्टाचारहरु पनि पालना गर्दैनन् जुन वृद्धवृद्धाहरुका लागि अष्ट्यारो कुरा हो।"* यी मिश्रित प्रतिक्रियाहरुले धार्मिक पर्यटनले सांस्कृतिक अभ्यासहरुलाई पनि पुनर्जीवित गरेको र अन्तर सांस्कृतिक प्रतिक्रियालाई बढावा दिएको भएतापनि सांस्कृतिक कमजोरी र व्यवसायीकरणको बारेमा अन्तर्निहित चिन्ताहरु रहेको सुझाव दिन्छ।

दिगोपन चुनौती र सामुदायिक सरोकारहरु

छलफलबाट निस्किएको एउटा महत्वपूर्ण विषय धार्मिक पर्यटनको दिगोपना र स्थानीय वातावरण र पूर्वाधार मा यसको दीर्घकालीन प्रभाव थियो। सहभागीहरुले फोहोर व्यवस्थापन, अत्याधिक भीडभाड र बढ्दो सङ्ख्यामा आगन्तुकलाई समायोजन गर्न उचित सुविधाहरुको अभावको बारेमा बारम्बार चिन्ता व्यक्त गरे। एक नगरपालिकाका अधिकारीले भने *"पर्यटकहरुको वृद्धिले हाम्रा आधारभूत सुविधाहरुलाई ओझेलमा पारेको छ। हामीलाई राम्रो सरसफाइ, फोहोर व्यवस्थापन र भीड व्यवस्थापन रणनीतिहरु चाहिन्छ।"*

रामग्रम स्तुप संरक्षणमा संलग्न एक संरक्षणवादीले भने *"पर्यटकहरुको सङ्ख्या बढ्दै जाँदा हामी ऐतिहासिक स्थलहरुमा प्लास्टिकको फोहोर र पैदल ट्राफिकको क्षति बढी देख्छौँ। यदि यो नियन्त्रण नगरिएमा हामीले यी स्थलहरुलाई पवित्र बनाउने कुराको सार गुमाउन सक्छौँ।"* यो चिन्ता एक स्थानीय किसानले तिर्थयात्रा मार्ग नजिकको जमिनलाई व्यावसायिक प्रयोगको लागि कसरी रुपान्तरण गरिँदैछ जसले वन फँडानी र बासस्थानको क्षती भइरहेको कुरा उल्लेख गरे।

यस बाहेक पर्यटनले आर्थिक अवसरहरु ल्याएको छ, यसले जीवन यापनका लागतहरु पनि बढाएको छ। एक बासिन्दाले भने *"पर्यटनका कारण खाद्यान्नको मुल्य बढेको छ र भाडा पनि बढिरहेको छ यसले प्रत्यक्ष रुपमा लाभान्वित नभएका स्थानीयहरुको जीवन कठिन बनाउँदैछ।"* यसले धार्मिक पर्यटनको दोधारे प्रकृतिलाई उजागर गर्दछ जबकी यसले आर्थिक वृद्धिलाई बढावा दिन्छ, यसले स्थानीय जनसंख्याको लागि किफायती र पहुँचसंग सम्बन्धीत चुनौतीहरु पनि प्रस्तुत गर्दछ।

निष्कर्ष : धार्मिक पर्यटनको जीवन्त वास्तविकताहरु

यस अध्ययनबाट प्राप्त गुणात्मक निष्कर्षहरुले स्थानीय आर्थिक विकासमा धार्मिक पर्यटनको जटिल र बहुआयामिक प्रभावहरुलाई चित्रण गर्दछ। एकातिर धार्मिक पर्यटनले रोजगारी सिर्जना गरेर स्थानीय व्यवसायहरुलाई बढावा दिएर र पूर्वाधार सुधार गरेर आर्थिक पुनरुत्थानमा उल्लेखनीय योगदान पुर्याएको छ भने अर्को तिर दिगोपन, सांस्कृतिक प्रमाणिकता र लाभको समतामूलक वितरणसँग सम्बन्धीत चुनौतीहरु कायमै छन्। सहभागीहरुले साझा गरेका विचारहरुले एउटा सुक्ष्म वास्तविकतालाई प्रतिबिम्बित गर्दछन् जहाँ धार्मिक पर्यटनका फाइदाहरु स्पष्ट छन् तर अनपेक्षित परिणामहरु पनि छन्। धार्मिक पर्यटनको थप समावेशी र दिगो मोडेल सुनिश्चित गर्ने नीतिहरु विकास गर्नु अत्यावश्यक छ। स्थानीय सरोकारवालाहरु निर्णय प्रक्रियामा सक्रिय रुपमा संलग्न हुनु पर्दछ। सांस्कृतिक संरक्षण र वातावरणीय संरक्षणसँग वृद्धि सन्तुलित छ भनी सुनिश्चित गर्दै एक समुदाय नेताले उपयुक्त रुपमा भने पर्यटनले जनताको सेवा गर्नु पर्दछ तिनिहरुलाई विस्थापित गर्नु हुँदैन। हामीले यसलाई कोहीका लागि मात्र होइन सबैका लागि लाभदायक बनाउने तरिका खोज्नु पर्दछ। यस अध्ययनको निष्कर्षले स्थानीय आर्थिक विकासको दिगो उपकरणको रुपमा धार्मिक पर्यटनलाई उपयोग गर्ने दिशामा काम गर्ने नीति निर्माताहरु, संरक्षणवादीहरु र समुदायका नेताहरुका लागि बहुमूल्य अन्तर्दृष्टि प्रदान गर्दछ। यी धार्मिक स्थलहरुको केन्द्रमा रहेका व्यक्तिहरुको अनुभवले एउटा शक्तिशाली सम्झना गराउँछ कि धार्मिक पर्यटन आर्थिक प्रगतिको आधार हुन सक्छ तर यसको सफलता अन्ततः स्थानीय समुदायको आवाज र आवश्यकतालाई कति राम्रोसँग एकिकृत गर्दछ भन्ने कुरामा निर्भर गर्दछ।

संकेत र छलफल

धार्मिक पर्यटन मार्फत् आर्थिक सशक्तिकरण

अध्ययनले रामग्राम स्तुप र त्रिवेणी धामको धार्मिक पर्यटन स्थानीय समुदायको लागि एक महत्वपूर्ण आर्थिक आधार बनेको देखाएको छ। धेरै साना व्यवसाय मालिकहरु, सडक व्यापारीहरु र यातायात सेवा प्रदायकहरु तिर्थयात्रीहरुको आगमनमा भर पर्दछन्। एक स्थानीय विक्रेताले उल्लेख गरे *"यदि तिर्थयात्री नभएको भए मेरो आम्दानी स्थिर हुने थिएन मौसम अनुकूल भएको खण्डमा म अन्य भन्दा दोब्बर कमाउँछु।"* यसले धार्मिक पर्यटनले उद्यमशीलता र स्वरोजगारका अवसरहरुलाई कसरी बढावा दिन्छ भनेर देखाउँछ। पर्यटन नेतृत्व आर्थिक वृद्धिमा अघिल्ला अध्ययनसँग मिल्दोजुल्दो देखिन्छ (शार्पाली र टेल्फर,२०१५)।

सांस्कृतिक संरक्षण र पहिचान सुदृढिकरण

धार्मिक पर्यटनले अर्थतन्त्रलाई मात्र बढाउँदैन यसले स्थानीय सांस्कृतिक पहिचानलाई पनि बलियो बनाउँछ। पर्यटकको चासो बढेको कारण यी पवित्र स्थलहरुसँग सम्बन्धीत अनुष्ठान, परम्परागत प्रदर्शन र धार्मिक समारोहहरु पुनर्जीवित भएका छन्। एक स्थानीय पुजारीले व्याख्या गरे *"धेरै युवाहरु हाम्रा परम्पराहरुबाट टाढा थिए तर अब उनीहरुले नेपाल र भारतका विभिन्न भागहरुबाट आउने तिर्थयात्रीहरु र आगन्तुकहरुको कारणले हाम्रो सम्पदा मूल्य देख्दछन्।"* यो खोज सांस्कृतिक संरक्षणको माध्यमको रुपमा पर्यटन व्यवसायमा गरिएको अनुसन्धानसंग प्रतिध्वनित हुन्छ (टिमोथी र बोयड, २००३)।

चुनौती र पूर्वाधारका बाधाहरु

आर्थिक फाइदाहरुको बाबजुद पूर्वाधार र सिमितताहरुले महत्वपूर्ण चुनौतीहरु खडा गर्दछन्। सिमित आवास सुविधा, खराब सडक पूर्वाधार र अप्रयाप्त फोहोर व्यवस्थापन प्रणालीले धार्मिक पर्यटनको पूर्ण सम्भावनालाई बाधा पुर्याउँछ। एक स्थानीय होटल मालिकले निराशा व्यक्त गर्दै भने *"मानिसहरु बस्न चाहन्छन् तर हामीसँग प्रयाप्त*

कोठाहरु छैनन् जसका कारण हामीले धेरै आगन्तुकहरु गुमाउन परेको छ ।" यो निष्कर्ष विकासशील अर्थतन्त्रहरुमा पर्यटनको पूर्वाधार अवरोधहरु भन्ने साहित्यसँग मिल्दोजुल्दो छ (स्केभेन्स,२००७) ।

सामाजिक रुपान्तरण र परिवर्तनशील समुदाय गतिशीलता

स्थानीय र तिर्थयात्रीहरु बीचको अन्तर्क्रियाले सामाजिक रुपान्तरण निम्त्याएको छ । विशेष गरी बाहिरी व्यक्तिहरु र आधुनिक व्यापारिक अभ्यासहरु प्रतिको दृष्टिकोणमा केही परिवर्तनलाई अँगाले भने अरुले शंका गर्छन् । एक समुदाय सदस्यले टिप्पणी गरे हामी *"विकासको लागि खुसी छौं तर कहिलेकाहीं हामीलाई लाग्छ कि हाम्रा परम्पर ाहरु व्यापारिकरण भएका छन् ।"* यसले पर्यटनमा संस्कृतिको वस्तुकरणमा व्यापक बहसहरु प्रतिबिम्बित गर्दछ (कोहेन, १९८८) ।

पर्यटन विकासमा महिलाको भूमिका

स्थानीय समुदायका महिलाहरुले आतिथ्य सेवादेखि हस्तकला उत्पादनसम्मका पर्यटनसँग सम्बन्धीत व्यवसायहरुमा नयाँ रोजगारीका अवसरहरु फेला पारेका छन् । एक महिला उद्यमीले भनिन् *"पहिले म मेरो श्रीमानको कमाइमा निर्भर थिएँ तर अब म आफ्नै पसल चलाउँछु । धार्मिक पर्यटनले मलाई स्वतन्त्रता दिएको छ ।"* यो खोजले पर्यटन महिला सशक्तिकरणको लागि एक उपकरण हुन सक्दछ भन्ने तर्कलाई समर्थन गर्दछ (स्केभेन्स,२०००) ।

छलफल

यी निष्कर्षहरुले धार्मिक पर्यटन र स्थानीय आर्थिक विकास बीचको जटिल तर धेरै हदसम्म सकारात्मक सम्बन्धलाई चित्रण गर्दछन् । आर्थिक सशक्तिकरण र सांस्कृतिक पुनरुत्थान स्पष्ट भए पनि सांस्कृतिक वस्तुकारणको बारेमा पूर्वाधार चुनौतीहरु र चिन्ताहरु अझै पनि प्रमुख मुद्धाहरु हुन् । अध्ययनले स्थनीय अर्थतन्त्रमा पर्यटनको भूमिकामा अघिल्लो अनुसन्धानलाई समर्थन गर्दछ तर नेपालका पवित्र सम्पदा स्थलहरुले सामना गर्ने अद्वितीय प्रासंगिक चुनौतीहरुलाई पनि हाइलाइट गर्दछ । नीतिगत हस्तक्षेप र दिगो पर्यटन योजना मार्फत यी चुनौतीहरुलाई सम्बोधन गर्नाले यी क्षेत्रहरुमा धार्मिक पर्यटनको सकारात्मक प्रभावलाई अझ बढाउन सक्छ ।

यस छलफलले स्थानीय सरोकारवालाहरुको जीवित अनुभवहरुको सुक्ष्म बुझाइ प्रदान गर्दछ जसले सांस्कृतिक प्रमाणिकताको रक्षा गर्दै आर्थिक लाभलाई अधिकतम बनाउने सन्तुलित दृष्टिकोणको आवश्यकतालाई बलियो बनाउँछ ।

निष्कर्ष

यस अध्ययनले स्थानीय आर्थिक विकासलाई आकार दिन धार्मिक पर्यटनको भूमिकाको गहन अन्वेषण प्रदान गरेको छ । रामग्राम स्तुप र त्रिवेणी धाममा केन्द्रीत यो अध्ययनको निष्कर्षहरुले धार्मिक पर्यटनले रोजगारी सिर्जना, उद्यमशीलता वृद्धि र सांस्कृतिक संरक्षणमा योगदान पुर्याउँछ भन्ने कुरा प्रस्तुत गर्दछ । जबकी एकै साथ पूर्वाधार घाटा, सामाजिक सांकृतिक तनाव र असमान आर्थिक वितरण जस्ता चुनौतीहरु समेत प्रस्तुत गर्दछ । धार्मिक पर्यटन र स्थानीय आर्थिक संरचनाहरु बीचको अन्तर्क्रियाले दिगो सांकृतिक संरक्षणसँग आर्थिक लाभहरुलाई सन्तुलनमा राख्ने रणनीतिक नीतिगत हस्तक्षेपहरुको आवश्यकतालाई जोड दिन्छ । प्रमाण आधारित नीति निर्माण र समावेशी सरोकार वाला संलग्नता मार्फत यी जटिलताहरुलाई सम्बोधन गर्न सकिन्छ जसले नेपालमा धार्मिक पर्यटनको सामाजिक आर्थिक सम्भावनालाई अधिकतम बनाउन सक्छ ।

सिफारिसहरु

- तिर्थयात्री र पर्यटकहरुको लागि राम्रो पहुँच सुविधा पुर्याउन बुटवल रामग्राम र त्रिवेणी जोडने करिडोरमा विशेष गरी सडक सञ्जाल र सार्वजनिक यातायात सेवाहरुको स्तरोन्नती गर्ने , रामग्राम स्तुप र त्रिवेणी धाममा दिगो पर्यटन अभ्यासको नियमन र निरिक्षण गर्न धार्मिक पर्यटन विकास बोर्ड स्थापना गर्ने,
- स्थानीय व्यवसायहरुलाई पर्यटन मूल्य श्रृङ्खलामा एकिकृत गर्ने समुदाय नेतृत्वको इको टुरिज्म पहलहरु गर्ने जसले समान लाभ वितरण सुनिश्चित गर्दछ
- त्रिवेणी नजिकै संरचित होमस्टे कार्यक्रम लागु गर्ने जसले स्थानीय घरपरिवारलाई सांस्कृतिक प्रमाणिकता जोगाउँदै धार्मिक पर्यटनलाई समायोजन गर्न अनुमति दिन्छ।
- बढ्दो आगन्तुकको सङ्ख्यालाई सम्हाल्न र वातावरणीय अखण्डता कायम राख्न धार्मिक स्थलहरुमा केन्द्रीकृत फोहोर व्यवस्थापन र सरसफाइ प्रणाली विकास गर्ने
- स्थानीय बासिन्दाहरु विशेष गरी महिला र युवाहरुलाई पर्यटनसँग सम्बन्धीत आर्थिक गतिविधिहरुमा सक्रिय रुपमा सहभागी हुन सक्षम बनाउन लक्षित उद्यमशीलता र आतिथ्य तालिम कार्यक्रमहरु सिर्जना गर्ने
- धार्मिक कलाकृति, स्थानीय शिल्प र खाना बेच्ने साना व्यवसायहरुलाई औपचारिक र नियमन गर्न तोकिएको बिक्रेता क्षेत्रहरुमा मात्र स्थापना गर्ने अनियन्त्रित व्यवसायिक फैलावटलाई रोक्ने
- आगन्तुकलाई संरचित ऐतिहासिक र धार्मिक कथा प्रदान गर्न स्थानीय विद्धान र भिक्षुहरुलाई तालिम दिएर सांस्कृतिक व्याख्या निर्देशित तिर्थयात्रा सेवालाई सुदृढ पार्ने

भविष्यका अनुसन्धान मुद्धाहरु

- धार्मिक पर्यटनको आर्थिक प्रभावको मूल्याङ्कन (रामग्राम स्तुपा र त्रिवेणी धाम क्षेत्रमा साना व्यवसाय, रोजगारी स्तर र स्थानीय आयमा धार्मिक पर्यटनले पार्ने प्रत्यक्ष र अप्रत्यक्ष प्रभावको अध्ययन)
- धार्मिक पर्यटन र सांस्कृतिक आध्यात्मिक प्रभाव (स्थानीय परम्परागत विश्वास प्रणाली र आध्यात्मिक अभ्यासमा धार्मिक पर्यटनले पार्ने प्रभावको गुणात्मक अध्ययन)
- दिगो पूर्वाधार र स्रोत व्यवस्थापनमा धार्मिक भेलाको प्रभाव (त्रिवेणी धाम र रामग्राम स्तुपामा हुने ठूला धार्मिक भेलाहरुले स्थानीय स्रोत र पूर्वाधारमा पार्ने प्रभावको विश्लेषण)
- लैङ्गिक समावेशीता र रोजगारीमा धार्मिक पर्यटनको भूमिका (धार्मिक पर्यटनसंग सम्बन्धित व्यवसाय र नेतृत्व भूमिकामा महिलाहरुको सहभागिता तथा लैङ्गिक गतिशीलताको अध्ययन)

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सुनवल नगरपालिकास्थित विद्यालयका बहुभाषिक कक्षाका विद्यार्थीहरूको नेपाली वाक्यगठनगत त्रुटि

पवित्रा पौडेल, शिक्षिका, महाकवि देवकोटा क्याम्पस

लेखसार : *प्रस्तुत लेखको उद्देश्य सुनवलका मगर र थारू मातृभाषी विद्यार्थीहरूको नेपाली वाक्यगठनगत त्रुटिहरूको पहिचान गरी तिनको कारण र निराकरणका उपायहरूको विश्लेषण गर्नु हो । यसको ढाँचा गुणात्मक रहेको छ । लेखमा व्याख्यानवादमा आधारित दार्शनिक दृष्टिकोणलाई अवलम्बन गरिएको छ । ज्ञान निर्माणको प्रमुख स्रोतमा प्राथमिक र द्वितीयक स्रोतका सामग्रीको उपयोग गरिएको छ भने तथ्य विश्लेषण एस पिट कर्डरको त्रुटि विश्लेषण सिद्धान्तका आधारमा गरिएको छ । सुनवलका चारओटा सामुदायिक विद्यालयका आठ जना मगर र आठ जना थारू विद्यार्थीहरूलाई सोद्देश्यमूलक विधिको प्रयोग गरी नमुना छनोट गरिएको हो । विषयगत परीक्षा, कक्षा अवलोकन तथा अन्तर्वार्ताबाट तथ्य सङ्कलन गरिएको हो । तथ्य विश्लेषणगर्दा नाम पदावली, क्रिया पदावली, नाम पदावली र क्रिया पदावलीबिचको सङ्गतिगत प्रयोग जस्ता क्षेत्रमा त्रुटि गरेको पाइएको छ । त्रुटिका कारणमा मातृभाषाको प्रभाव, नेपाली भाषाको सैद्धान्तिक ज्ञानको कमी, विद्यार्थीको लापर्वाहीजस्ता कारण देखिएका छन् ।*

मुख्य शब्दावली : *व्याख्यानवाद, मातृभाषा, प्राज्ञिक, दार्शनिक, सामुदायिक ।*

परिचय

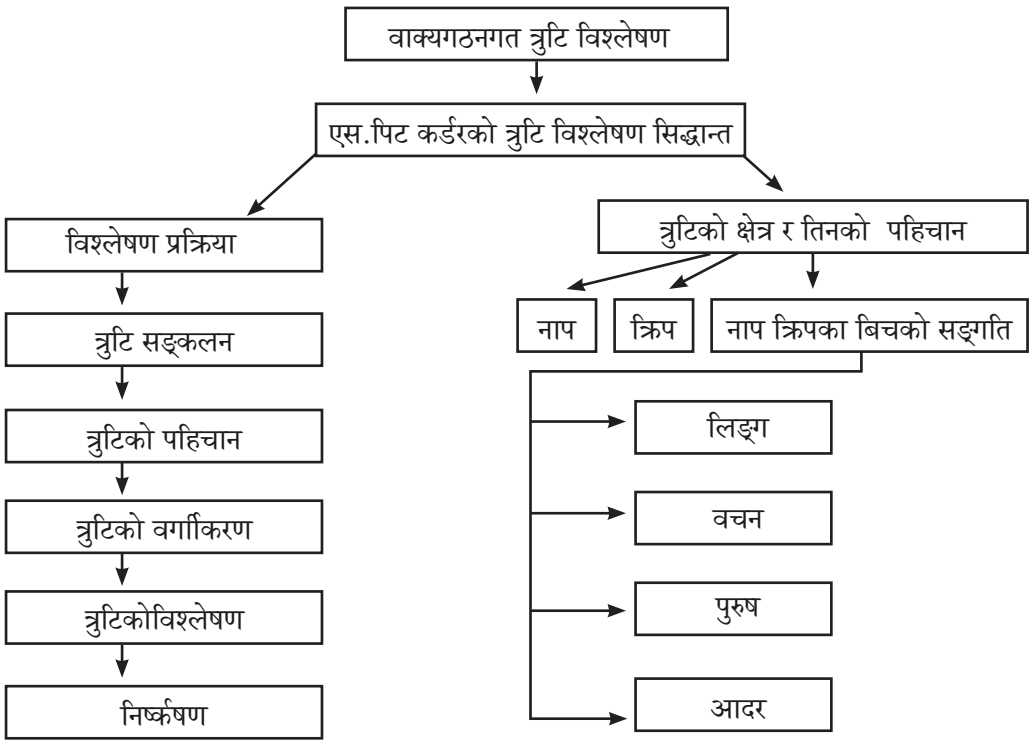
विविध मातृभाषी भएका विद्यार्थीहरूको सहभागिता भएको कक्षालाई बहुभाषिक कक्षा भनिन्छ । भाषाको सिकाइ त्रुटिरहित हुन सक्दैन । पहिलो वा दोस्रो जुन भाषाको सिकाइमा पनि सिकारुले त्रुटि गर्ने गर्दछन् तर यस्ता त्रुटिको प्रकृति र क्षेत्र भने भिन्न हुने गर्दछ त्यसैले सिकारुका त्रुटि पहिचान गरी तिनका कारणहरूको खोज गर्ने र निर ाकरणका उपायहरू अवलम्बन गर्नु आवश्यक हुन्छ । प्रस्तुत लेखमा नवलपरासी जिल्ला (बर्दघाट सुस्ता पश्चिम) को सुनवल नगरपालिकाभित्रका माध्यमिक तहका बहुभाषिक कक्षामा अध्ययन गर्ने मगर र थारू मातृभाषा भएका विद्यार्थीहरूले नेपाली भाषाको प्रयोग गर्दा वाक्यगठनमा गर्ने त्रुटिको खोज गरिएको छ। वाक्यका संरचक घटकहरूको सङ्गतिपूर्ण प्रयोग नै वाक्यगठन हो अथवा वाक्यका आधारभूत पक्षहरू लिङ्ग, वचन, पुरूष, आदर, काल, पक्ष, भाव, वाच्य, ध्रुवीयता आदिको उपयुक्त प्रयोग गर्नु नै वाक्यगठन हो। वाक्यको निर्माण पदावलीको संयोजनबाट हुने भएकाले पदावली वाक्यको अनिवार्य घटक हो । वाक्यमा प्रयुक्त पदावली नाम पदावली, क्रिया पदावली, विशेषण पदावली र क्रिया विशेषण पदावली जस्ता विभिन्न प्रकारका हुन्छन् (गौतम र चौलागाई, २०७०, पृ.२३५) । प्रस्तुत अध्ययनमा मगर र थारू मातृभाषी विद्यार्थीले नाम पदवली र क्रिया पदवलीको प्रयोग गर्दा कस्ता कस्ता त्रुटि गर्छन ? त्यस्तै लिङ्ग, वचन, पुरूष, आदरजस्ता पक्षका आधारमा नाम पदावली र क्रिया पदावलीका बिचको सङ्गतिगत प्रयोगमा कस्ता कस्ता त्रुटि गर्छन् अनि यस्ता त्रुटि गर्नुका कारणहरू के के छन् ? जस्ता प्राज्ञिक जिज्ञासाको समाधान गरिएको छ।

अवधारणात्मक रूपरेखा

यस लेखको मुख्य सैद्धान्तिक पर्याधार एस.पि.कर्डरको त्रुटि विश्लेषण सिद्धान्त हो । त्यस सैद्धान्तिक मान्यतालाई आधार बनाएर निम्न अनुसारको अवधारणात्मक ढाँचाको निर्माण गरिएको छ :

वृक्षारेख १

अवधारणत्मक ढाँचा



समस्याकथन र उद्देश्य

नेपाल बहुजाति, बहुधर्म, बहुसस्कृति तथा बहुभाषा भएको मुलुक हो त्यसैले यहाँका अधिकांस विद्यालयहरूका कक्षामा बहुभाषी विद्यार्थीहरू पाइन्छन् । नेपाली भाषाको भाषिक वातावरण प्राप्त गर्न नसकेका विद्यार्थीहरूमा स्वाभाविक रूपमा नेपाली भाषा सिकाइमा समस्या देखापर्छ । घर तथा समुदायमा मातृभाषाको प्रयोग हुने र विद्यालय अझ कक्षाकोठामा मात्र नेपाली भाषाको प्रयोग हुने हुँदा नेपालीबाहेक अन्य मातृभाषा भएका विद्यार्थीहरूलाई नेपाली भाषा सिकाइ कठिन देखिन्छ । सुनवल नगरपालिका क्षेत्रभित्रका विद्यालयका कक्षाहरू पनि बहुभाषिक छन् । विशेषगरी यस क्षेत्रका विद्यालयहरूका कक्षामा थारू, भाजपुरी, मगर, गुरुङ, अवधी लगायतका भिन्न भिन्न मातृभाषी विद्यार्थीहरूको सहभागिता पाइन्छ । पूर्वकार्यहरूको अध्ययनगर्दा सुनवल नगरपालिकाभित्रका माध्यमिक तहमा अध्ययन गर्ने मगर र थारू मातृभाषी विद्यार्थीका वाक्यगठनगत त्रुटिको खोजी हालसम्म पनि गरिएको पाइँदैन । यस क्षेत्रका माध्यमिक तहका बहुभाषिक कक्षामा विद्यार्थीका भाषिक पृष्ठभूमि र क्षमताका आधारमा सिकारूलाई वर्गीकरण गरी सोही अनुसार शिक्षणका सामग्री, विधि तथा पाठ्यवस्तु प्रयोगका साथ उत्प्रेरणा र सबलीकरणका माध्यमबाट नेपाली भाषाको शिक्षण गर्न सक्ने हो भनेमात्र नेपाली सिकाइ सहज बन्न सक्ने देखिन्छ तर अधिकांश यस क्षेत्रका बहुभाषिक कक्षामा परम्परागत

व्याख्यान विधिबाट शिक्षण गरिदा नेपाली सिकाइमा नेपालीइतर मातृभाषी विद्यार्थीलाई बढी समस्या आएको छ। त्यसै ले सुनवल नगरपालिका क्षेत्रभित्रका माध्यमिक तहमा अध्ययन गर्ने नेपालीइतर मातृभाषीअर्न्तगत मगर र थारू मातृभाषी विद्यार्थीहरूका नेपाली भाषा सिकाइसँग सम्बन्धित समस्याको अध्ययनका निमित्त प्रस्तुत अध्ययनमा निम्नलिखित अनुसन्धानप्रश्नको निर्धारण गरी तिनको सम्यक्उत्तर खोज्ने कार्य गरिएको छ :

क) मगर र थारू मातृभाषी विद्यार्थीले नेपाली भाषाको वाक्यगठनमा नाम पदावली र क्रियापदावलीको प्रयोगमा के कस्ता त्रुटि गर्छन ?

ख) मगर र थारू मातृभाषी विद्यार्थीहरूले नेपाली भाषाको वाक्यगठनमा नाम पदावली र क्रिया पदावलीका बिच सङ्गतिपूर्ण प्रयोगमा के कस्ता त्रुटि गर्छन्?

ग) मगर र थारू मातृभाषी विद्यार्थीहरूले नेपाली भाषाको वाक्यगठनमा किन र कसरी त्रुटि गर्छन ?

यी मूल प्रश्नसँग सम्बद्ध अध्ययनका उद्देश्य निम्नानुसार छन्:

क) मगर र थारू मातृभाषी विद्यार्थीले नेपाली भाषाको वाक्यगठनमा नाम पदावली र क्रियापदावलीको प्रयोगमा गर्ने त्रुटिको विश्लेषण गर्नु।

ख) मगर र थारू मातृभाषी विद्यार्थीहरूले नेपाली भाषाको वाक्यगठनमा नाम पदावली र क्रिया पदावलीका बिच सङ्गतिपूर्ण प्रयोगमा गर्ने त्रुटिको विश्लेषण गर्नु।

ग) मगर र थारू मातृभाषी विद्यार्थीले नेपाली भाषाको वाक्यगठनमा गर्ने त्रुटिका कारणहरू पत्ता लगाउनु।

अध्ययनको परिसीमा र क्षेत्र

प्रस्तुत लेख चार वटा माध्यमिक विद्यालयमा अध्ययन गर्ने मगर र थारू मातृभाषा भएका विद्यार्थीहरूले नेपाली भाषाको सिकाइका क्रममा नेपाली वाक्यगठनमा गर्ने त्रुटिहरूको खोजीमा केन्द्रित रहेको छ। माध्यमिक तहमा अध्ययन गर्ने मगर तथा थारू मातृभाषी विद्यार्थी सुनवल नगरपालिकाबाहेक अन्य क्षेत्रमा पनि पाइन्छन् तर यो अध्ययन नवलपरासी जिल्ला (बर्दघाट सुस्ता पश्चिम) को सुनवल नगरपालिकाभित्रका मा.वि. तहमा अध्ययन गर्ने मगर र थारू मातृभाषी विद्यार्थीहरूमा सीमित रहेको छ। बहुभाषिक कक्षामा मगर, थारू लगायतका अन्य धेरै मातृभाषी भएका विद्यार्थीहरूको सहभागिता हुने भएपनि प्रस्तुत लेख मगर र थारू मातृभाषी विद्यार्थीहरूमा सीमित छ। नेपाली भाषा लेखाइका क्रममा विद्यार्थीहरूले गर्न सक्ने सम्भावित त्रुटिहरू विभिन्न क्षेत्रका हुन सक्छन्। यस अध्ययनमा व्याकरणात्मक कोटिहरू लिङ्ग, वचन, पुरुष र आदरका आधारमा गर्ने त्रुटिहरूको मात्र अध्ययन गरिएको छ। प्रस्तुत अध्ययनमा नवलपरासी जिल्लाअन्तर्गतका सबै माध्यमिक विद्यालयलाई समेट्न सकिएको छैन।

पूर्व साहित्यको पुनरावलोकन र सैद्धान्तिक अवधारणा

यस लेखमा मगर र थारू मातृभाषी विद्यार्थीहरूले नेपाली वाक्य निर्माण गर्ने सन्दर्भमा गर्ने नाम पदावली र क्रिया पदावलीगत त्रुटि तथा नाम पदावली र क्रिया पदावलीको सङ्गतिगत प्रयोगमा गर्ने त्रुटिको अध्ययन गरिएकाले वाक्यगठनगत त्रुटिका सम्बन्धमा हालसम्म गरिएका खोज, अध्ययनलाई पूर्वकार्यको समीक्षामा समावेश गरिएको छ :

त्रुटि विश्लेषणसम्बद्ध पूर्वकार्यको समीक्षा

प्रस्तुत शीर्षकसँग केन्द्रित भएर यसअघि भएका पूर्वकार्यको अध्ययनगर्दा विभिन्न प्रयोजनका लागि वाक्यगठनगत त्रुटिसम्बन्धी केही अध्ययन भएको पाइन्छ। यद्यपि सुनवल नगरपालिका नै केन्द्रित भएर यसप्रकारको

अध्ययन भने गरिएको छैन । तसर्थ अन्य क्षेत्रमा गरिएको वाक्यगठनगत त्रुटिसँग सम्बन्धित अध्ययनलाई यस सन्दर्भमा जोडेर हेर्नुपर्ने भएकोले त्यसैअनुरूप पूर्वकार्यहरूको समीक्षा गरिएको छ :

कल्पना पौडेल (२०७१) द्वारा *कास्की जिल्लाका कक्षा सातमा अध्ययनरत विद्यार्थीहरूले वाक्यगठनमा गर्ने त्रुटिहरुको अध्ययन* शीर्षकको स्नातकोत्तर शोधपत्रमा कास्की जिल्लाका कक्षा सातमा अध्ययनरत विद्यार्थीहरूले नेपाली भाषा सिकाइका क्रममा गर्ने वाक्यगठनगत क्षमताको पहिचान गर्नु, त्रुटिका क्षेत्रहरूको पहिचान गर्नु, लिङ्ग तथा विद्यालयको प्रकृतिका आधारमा विद्यार्थीहरूका त्रुटिहरूको तुलनात्मक अध्ययन गर्नुजस्ता उद्देश्य राखिएको छ । क्षेत्रीय अध्ययन विधिलाई तथ्याङ्क सङ्कलनको मुख्य आधार बनाइएको उक्त शोधपत्रमा कास्की जिल्लाभित्रका आठओटा विद्यालयबाट कक्षा सातमा अध्ययन गर्ने प्रत्येक विद्यालयबाट १० १० जना पर्ने गरी जम्मा असी जना विद्यार्थीलाई नमुना विद्यार्थीका रूपमा छनोट गरिएको छ। संस्थागत र सामुदायिक विद्यालयका विद्यार्थीहरूका त्रुटिहरूको तुलनात्मक अध्ययनबाट सामुदायिकभन्दा संस्थागत विद्यालयमा अध्ययनरत विद्यार्थीहरूको वाक्यगठनगत क्षमता राम्रो रहेको र लिङ्गका आधारमा तुलना गर्दा छात्राभन्दा छात्रको वाक्यगठन क्षमता राम्रो रहेको निष्कर्ष निकालिएको छ ।

गिरीबहादुर पुन (२०७१) द्वारा *बाग्लुङ् जिल्लाका कक्षा सातमा अध्ययनरत मगरभाषी विद्यार्थीहरूले नेपाली वाक्यगठनमा गर्ने त्रुटिहरू* शीर्षकमा शोधकार्य गरिएको पाइन्छ। स्नातकोत्तर तहको उक्त शोधमा मगर मातृभाषी विद्यार्थीहरूले नेपाली वाक्यगठनमा गर्ने त्रुटि पहिचान गर्नु, सामुदायिक र संस्थागत विद्यालयका विद्यार्थीहरूबिच तुलनात्मक अध्ययन गर्नु, त्रुटिका कारणहरू पत्ता लगाउनु र त्रुटि निराकरणका लागि सुझाउहरू दिनुजस्ता उद्देश्यहरू राखिएका छन् । क्षेत्रीय अध्ययन विधिको प्रयोग गरी प्राथमिक स्रोतका सामग्री सङ्कलन गरिएको छ । प्रश्नावलीलाई तथ्याङ्क सङ्कलनको साधनका रूपमा उपयोग गरिएको पाइन्छ। सङ्कलित तथ्याङ्कको विश्लेषणबाट मगर मातृभाषी विद्यार्थीहरूले नेपाली भाषा सिकाइका क्रममा वाक्यगठन गर्दा सबैभन्दा बढी त्रुटि वाच्यमा गरेको निष्कर्ष निकालिएको छ भने सबैभन्दा कम त्रुटि लिङ्गमा गरेको निष्कर्ष निकालिएको छ । उक्त शोधपत्रको अध्ययनबाट यस शोधमा सैद्धान्तिक आधार निर्माण गर्न तथा विद्यार्थीका त्रुटिको प्रवृत्तिगत भिन्नताको विशलेषण गर्नका लागि आधार निर्माणमा सहयोग पुगेको छ ।
मातृका खतिवडा (२०७४) ले *माध्यमिक तहमा अध्ययनरत विद्यार्थीहरूले वाक्यगठनमा गर्ने त्रुटि* शीर्षकमा शोधपत्र तयार पारेको देखिन्छ । स्नातकोत्तर तहको उक्त शोधपत्रमा माध्यमिक तहमा अध्ययनरत विद्यार्थीहरूले वाक्यगठनमा गर्ने त्रुटिको क्षेत्र पत्ता लगाउनु, उक्त तहमा अध्ययन गर्ने विद्यार्थीहरूले वाक्यगठनमा गर्ने त्रुटिहरूको वर्गीकरण गर्नु, उक्त तहमा अध्ययन गर्ने विद्यार्थीहरूले वाक्यगठनमा गर्ने त्रुटिहरूको निराकरणका उपाय पत्ता लगाउनुजस्ता उद्देश्यहरू राखिएको छ ।। त्रुटिहरूको वर्गीकरण गर्दा कतिपय त्रुटिहरू नियमित र अनियमित देखाइएको छ । यस शोधमा विद्यार्थीका त्रुटिहरू मातृभाषाका कारणले भएको देखाइएको छ। गम्भीरताका आधारमा त्रुटि नभएको र व्यापकताका आधारमा समष्टिगत त्रुटि भन्दा आंशिक त्रुटि कम भएको उल्लेख गरिएको छ । यस अध्ययनमा विद्यार्थीहरूले गर्ने वाक्यगठनगत त्रुटिको विश्लेषण गरिए पनि थारू र मगर मातृभाषी विद्यार्थीमै केन्द्रित भएर वाक्यगठनमा गर्ने त्रुटिको खोज तथा विश्लेषण गर्ने कार्य भने गरेको छैन ।

हब्सा रियाज (सन् २०२०) द्वारा *इरर एनालाइसिस : अ स्टडी अफ इरर म्याड इन रिटन इङ्लिस बाइ सेकेन्डरी स्कूल स्टुडेन्टस् इन कस्मिर भ्याली* शीर्षकको विद्यावारिधि शोधप्रबन्धमा कस्मिर भ्यालीमा माध्यमिक तहका कक्षा नौ र दशमा अध्ययन गर्ने विद्यार्थीहरूले अङ्ग्रेजी भाषा लेखनमा कस्ता त्रुटि गर्छन, यस क्षेत्रका विद्यार्थीले गर्ने मुख्य गल्ती के के हुन्, त्रुटिका प्रकृति र प्रकार के कस्ता छन्, भन्ने समस्यामा केन्द्रित रहेको छ । सरकारी, निजी र मिसनरी गरी सोह्रओटा विद्यालयका कक्षा नौर दशका तीन सय जना विद्यार्थीहरूलाई अनियमित रूपमा छनोट गरी शोधप्रबन्ध तयार

पारिएको छ। उक्त शोधमा निर्धारित क्षेत्र र तहका विद्यार्थीहरूले मुख्य गरी आठ प्रकारका त्रुटि गरेको उल्लेख गरिएको छ जसमा हिज्जे, काल, प्रिपोजिसन, आर्टिकल्स, क्यापिटलाइजेसन र गलत शब्द छनोट देखाइएको छ। त्रुटिका मुख्य कारणमा पहिलो भाषाको प्रभाव सीमित र अन्य कारणहरू मुख्य देखाइएको छ। अन्य कारणमा अङ्ग्रेजी व्याकरण ज्ञानको कमी, शब्द भण्डारको कमी, विद्यार्थीहरूको लापर्बाही र दोस्रो भाषाको सीमित ज्ञान, अप्रशिक्षित शिक्षक, शिक्षण विधि, परीक्षा प्रणाली, कक्षा कोठा र कम प्रेरणालाई त्रुटिका मुख्य कारणका रूपमा उल्लेख गरिएको छ।

त्रुटि विश्लेषणसम्बद्ध सैद्धान्तिक समीक्षा

प्रस्तुत लेखमा तथ्यको व्याख्या/अर्थापानका लागि स्टेफेन पिट् कर्डरको त्रुटि विश्लेषण सिद्धान्तको उपयोग गरिएको छ। कर्डरलाई त्रुटि विश्लेषण सिद्धान्तका पिता पनि भन्ने गरिन्छ। त्यसैले त्रुटि विश्लेषणका सन्दर्भमा कर्डर को सिद्धान्त महत्त्वपूर्ण मानिन्छ। त्रुटि विश्लेषण सिद्धान्त दोस्रो भाषा सिकाइसँग सम्बन्धित रहेको छ। त्रुटिलाई भाषा सिकाइको कमजोरी ठान्ने परम्परागत मान्यतालाई खण्डन गर्दै सन्१९७० को दशकमा त्रुटि विश्लेषण प्रक्रियाको प्रार म्भ भएको हो। कर्डरको सन् १९६७ मा प्रकाशित सिकारुको भाषा सङ्क्रमणको अवस्थासम्बन्धी विवरण प्रस्तुत गरि एको द सिग्निफिकेन्स अफ लर्नरस इरर शीर्षकको लेखले त्रुटि विश्लेषण सद्धान्तको विकासमा महत्त्वपूर्ण भूमिका खेलेको देखिन्छ। भाषा समाजबाट आर्जन गरिने सामाजिक वस्तु हो। कुनै पनि व्यक्ति एकै पटकमा भाषामा दक्ष हुन सक्दैन। भाषा सिक्ने क्रममा मानिसले अनेकौं त्रुटि गर्छन्र ती त्रुटिहरू सच्याउँदै पनि गइरहेका हुन्छन् (पौडेल, २०७३, पृ. १९९-२००)। पहिलो भाषा सिकाइ अथवा दोस्रो भाषा सिकाइ जुनसुकै भाषा सिकाइ भए तापनि भाषा सिकाइ त्रुटि निरपेक्ष हुँदैन। पहिलो भाषा सिकाइ अनियन्त्रित र स्वतन्त्र वातावरणमा हुन्छ भने दोस्रो भाषा सिकाइ नियन्त्रित वातावरणमा हुने गर्दछ (कर्डर, १९८१, पृ.७)। यस सिद्धान्तमा सामान्यतया त्रुटि भन्नाले दोस्रो भाषा आर्जनका क्रममा गर्ने त्रुटि भन्ने बुझिन्छ र ती त्रुटिलाई पहिलो भाषासँग दाँजेर हेरिन्छ। यसरी प्राप्त त्रुटिहरूको कारणको खोजी पनि गरिन्छ (कर्डर, सन्१९८२, पृ.४)। बिना त्रुटि कुनै पनि भाषाको सिकाइ सम्भव देखिँदैन। प्रारम्भिक समयमा त्रुटिलाई मानवीय कमजोरी मानिए पनि आज भोलि यसलाई सफलताको प्रयास र विकासशीलताको एउटा प्रक्रिया मानिन्छ। त्रुटि विश्लेषण सिद्धान्तका सम्बन्धमा उक्त पुस्तकमा त्रुटिको परिचय, त्रुटिको वर्गीकरण, त्रुटि विश्लेषण प्रक्रिया र त्रुटि विश्लेषणका चरणको चर्चा गरिएको छ।

अध्ययन विधि र प्रक्रिया

प्रस्तुत अध्ययनको दार्शनिक आधार व्याख्यानवाद (इन्टरप्रिटिभिज्म) हो। व्याख्यानवादी मान्यताले फरक फरक व्यक्तिले एउटै उद्देश्यीय वास्तविकतालाई फरक फरक तरिकाले अनुभव गर्छन् बुझ्छन् भन्ने मान्यता राख्दछ (गुडविन, २००५, पृ.४५)। वैज्ञानिक तथ्यको खोजीभन्दा पनि सामाजिक कार्यको खोजी गरी विषयगत अर्थमा मानवीय कार्यहरूको व्याख्या गर्ने कार्य व्याख्यानवादले गर्दछ। व्याख्यानवादी मान्यताले व्यक्तिगत कागजातहरू, सहभागी अवलोकन अर्धसंरचित अन्तर्वार्तालाई महत्व दिएको छ (गिभन, सन् २००८, पृ.८)। यस अध्ययनको क्रममा पनि कक्षा अवलोकन, अर्धसंरचित अन्तर्वार्ता र विद्यार्थीका उत्तरपुस्तिका माध्यमद्वारा सङ्कलित सामग्रीको विश्लेषण गरी व्याख्यानवादी मान्यतालाई उपयोग गरिएको छ।

अध्ययनको ढाँचा

यो अध्ययन गुणात्मक ढाँचामा आधारित छ । यसमा गुणात्मक अनुसन्धान ढाँचाअन्तर्गत डकुमेन्ट/पाठ/सङ्कथन विश्लेषण विधिलाई अवलम्बन गरिएको छ। विद्यार्थीहरूले लेखेका विषयगत तथा स्वतन्त्र लेखनसम्बन्धी प्रश्नका उत्तरहरूलाई पाठका रूपमा लिएर विश्लेषण गरिएको छ। तथ्य सङ्कलनकै क्रममा गरिएको

कक्षा अवलोकन तथा प्राचार्य र शिक्षकसँगको अर्न्तवार्ताबाट प्राप्त सामग्रीको विश्लेषणबाट निष्कर्षमा पुगिएको छ। यसमा विद्यार्थीहरूका वाक्यगठनगत त्रुटिहरूको अध्ययनका लागि अध्ययनकर्ता आफू स्वयम् विद्यालयमा उपस्थित भई विद्यालयका प्राचार्य र शिक्षकसँग अर्न्तवार्ता तथा कक्षाको अवलोकन गरिएको हो। सामग्री सङ्कलनकै क्रममा पूर्वपरीक्षण गरी तयार पारिएको प्रश्नपत्रको उत्तर लेख्न लगाइएको छ। यसरी सङ्कलन गरिएको सामग्रीको विश्लेषण गरेर निष्कर्षमा पुगिएको छ।

सामग्री सङ्कलन विधि

यस अध्ययनमा तथ्य सङ्कलनमा मूलतः क्षेत्रीय अध्ययन विधिको प्रयोग गरिएको छ। क्षेत्रीय विधि कुनै विषयवस्तु वा घटनाको प्राकृतिक अवस्थाको अध्ययन गर्न उपयोग गरिन्छ (लामिछाने र अन्य, २०६९, पृ.३७)। यस अध्ययनका क्रममा अध्ययनकर्ता आफैँ सम्बन्धित विद्यालयमा गई अध्ययनका सहभागीहरूलाई भेटी उनीहरूको भाषिक व्यवहार, परम्परा, रीतिस्थिति, परिवेश आदि राम्रोसँग बुझ्नेर सामग्री सङ्कलन गरिएको छ। यस अध्ययनका लागि अध्ययनकर्ता सहभागीहरू जस्तै बनेर उनीहरूसँग घुलमिल भई प्रत्यक्ष रूपमा अवलोकन गरी सामग्री सङ्कलन गरिएको छ। जनसङ्ख्यासँग प्रत्यक्ष सम्पर्क गरिएको छ। त्यस्तै त्रुटि विश्लेषण सिद्धान्त, शोधपत्र, पाठ्यपुस्तक, सन्दर्भसामग्री आदिलाई द्वितीयक स्रोत सामग्रीका रूपमा उपयोग पनि गरिएको छ। यस अध्ययनमा मूलतः प्राथमिक स्रोतका सामाग्रीको उपयोग गरिएको छ। यसका लागि व्याकरणात्मक कोटिहरू लिङ्ग, वचन, पुरुष, आदरजस्ता पक्षहरूमा आधारित भई वाक्यगठनमा केन्द्रित भएर विषयगत तथा स्वतन्त्र लेखनसँग सम्बन्धित प्रश्नहरू निर्माण गरी पाइलट परीक्षणद्वारा मानकीकरण गरी प्रश्नपत्र तयार पारिएको छ। तत्पश्चात् छनोट गरिएका सबै विद्यालयका नमुना जनसङ्ख्याका रूपमा रहेका विद्यार्थीसमक्ष पुगी परीक्षा लिई सामग्री सङ्कलन गरिएको छ। विद्यार्थीहरूले गरेका त्रुटिका कारणसँग सम्बन्धित सामग्री सङ्कलन गर्ने सन्दर्भमा अन्तर्वार्ताको उपयोग गरिएको हो।

जनसङ्ख्या र नमुना छनोट

यस अध्ययनका जनसङ्ख्या नवलपरासी जिल्ला (बर्दघाट सुस्ता पश्चिम) अन्तर्गतको सुनवल नगर पालिकाभित्रका चारओटा सामुदायिक विद्यालयका कक्षा ९ र १० अध्ययन गर्ने मगर र थारू मातृभाषा भएका विद्यार्थीहरू हुन्। अध्ययनको उद्देश्य परिपूर्तिका लागि आफ्नै बुद्धि विवेकद्वारा नमुना छनोट गर्ने विधि नै उद्देश्यपूर्ण नमुना छनोट विधि हो (खनाल, २०७६, पृ.७३)। यसमा पनि अध्ययनको उद्देश्यअनुरूप मगर र थारू मातृभाषी विद्यार्थीबाट नमुना विद्यार्थी छनोट गर्दा मातृभाषा बोल्न सक्ने विद्यार्थीहरूलाई छनोट गरिएको छ भने विद्यालय छनोट गर्दा पनि बहुभाषिक कक्षा भएका तथा बहुभाषिक कक्षामा मगर र थारू मातृभाषा भएका विद्यार्थीहरूको सहभागिता भएका विद्यालयलाई छनोट गरिएको छ। यसमा आठ जना मगर र आठ जना थारू गरी सोह्र जना विद्यार्थीहरूलाई नमुना जनसङ्ख्याका रूपमा छनोट गरिएको छ।

सामग्री विश्लेषण प्रक्रिया

कोहेन, म्यानियन र मोरिसन (सन् २००२) ले गुणात्मक अध्ययनमा व्यक्ति, समूह, मुद्दा, अनुसन्धान प्रश्न र साधन गरी पाँच आधारबाट सामग्रीको विश्लेषण गर्न सकिने उल्लेख गरेका छन् (पृ.४६१- ४६८)। प्रस्तुत अध्ययनमा कोहेन, म्यानियन र मोरिसनकै अवधारणामा आधारित रहेर गुणात्मक प्रारूपका सूचना एवम् तथ्यलाई व्याख्या, विश्लेषण गरिएको छ।

नैतिकताको सुनिश्चितता

प्रस्तुत अध्ययनको शीर्षक तथा उद्देश्यलाई दृष्टिगत गरी सामग्रीको निर्माण तथा प्रयोग गरिएको छ। सामग्री सङ्कलनका लागि निर्माण गरिएको प्रश्नपत्रमा समावेश गरिएका प्रश्नहरू उद्देश्यमूलक, स्पष्ट र सान्दर्भिक बनाइएको छ। अनुसन्धानकर्ता स्वयम् उपस्थित भएर सामग्रीको सङ्कलन गरिएको छ। प्रश्नपत्रको सत्यापनका लागि पूर्वपरीक्षण तथा विषयविज्ञबाट आवश्यक सहयोग लिइएको छ। सङ्कलित सामग्रीको आवश्यकताअनुसार स्रोत खुलाउने कार्य गरिएको छ। सामग्री सङ्कलनका क्रममा व्यक्तिका अधिकार, स्वतन्त्रता, गोपनीयता, सामाजिक, सांस्कृतिक, लैङ्गिक, जातीय संवेदनशीलतालाई ध्यान दिइएको छ।

प्राप्ति र छलफल

मगर र थारू भाषी विद्यार्थीहरूले वाक्यमा प्रयोग गरेका नाम पदावली तथा क्रिया पदावली र नाम पदावली र क्रिया पदावली बिचको सङ्गतिमा त्रुटि गरेको पाइएको छ। पदावलीको संरचनामा शीर्ष पदको विस्तार पदका रूपमा विशेषक आउने हुँदा शीर्ष जुन लिङ्ग, वचन, पुरुष, आदरमा हुन्छ विशेषक पनि सोहीअनुरूपको हुनुपर्दछ तर यस अध्ययनका क्रममा माध्यमिक तहमा अध्ययन गर्ने मगर र थारू मातृभाषी विद्यार्थीहरूले प्रयोग गरेका नाम पदावली र क्रिया पदावलीको संरचनालाई हेर्दा यस्तो पाइएन। विद्यार्थीहरूले शीर्ष पद स्त्रीलिङ्गको र विशेषक पद पुलिङ्गको प्रयोग गरेको देखियो त्यसैगरी विद्यार्थीहरूले शीर्ष बहुवचनको र विशेषक एकवचनको प्रयोग गरेको पनि पाइयो। यस अध्ययनका क्रममा विद्यार्थीहरूले प्रयोग गरेका पदावलीमा उच्च आदरका शीर्षसँग सामान्य आदरका विशेषकको प्रयोग तथा सामान्य आदरका शीर्षसँग उच्च आदरका विशेषकको प्रयोग गरेको पनि पाइयो। सामान्य आदरका शीर्षसँग अनादरका विशेषको प्रयोग पनि गरेको पाइएको छ। विद्यार्थीका त्रुटिलाई विकासशीलताका आधारमा विश्लेषण गर्दा व्यवस्थित र अव्यवस्थित दुवै प्रकारका त्रुटि गरेको देखिन्छ। उनीहरूले गरेका कुनै त्रुटि नियमित प्रकृतिका छन्। एउटै त्रुटि पटक पटक गरिएको छ भने कुनै त्रुटि कतै शुद्ध प्रयोग गर्ने र कतै गल्ती गर्ने जस्ता अनियमित प्रकृतिका पनि छन्। मगर र थारू दुवै मातृभाषी विद्यार्थीहरूका वाक्यगठनगत त्रुटिलाई स्रोतका आधारमा विश्लेषण गर्दा भाषान्तरिक र अन्तरभाषिक दुवै प्रकारका त्रुटि गरेको पाइएको छ। सिकिरहेको भाषिक व्यवस्थासँग सम्बन्धित त्रुटि भाषान्तरिक त्रुटि हो (भण्डारी, घिमिरे र नेपाल, २०६८, पृ.१४४)। मगर र थारू दुवै मातृभाषी विद्यार्थीहरूले दोस्रो भाषाका रूपमा सिकिरहेको नेपाली भाषाका भाषिक व्यवस्थासँग सम्बन्धित त्रुटिहरू गरेको पाइएको छ।

विद्यार्थीहरूले वाक्यमा प्रयोग गरेका नाम पदावली र क्रिया पदावलीका बिचमा लिङ्ग, वचन, पुरुष, आदरका आधारमा सङ्गति मिलाउने क्रममा पनि त्रुटि गरेको पाइएको छ। वाक्यमा प्रयुक्त विशेषक र विशेष्यका बिचको सङ्गति मिलाउने क्रममा त्रुटि गरेको पाइएको छ। विद्यार्थीहरूले उद्देश्य विस्तार र विधेय विस्तारका बिच सङ्गति नमिल्नु तथा वाच्यात्मक अन्विति नमिल्नु जस्ता विविध त्रुटिहरू गरेको देखिएको छ। विद्यार्थीहरूले अन्तरभाषिक त्रुटि गरेको पनि पाइएको छ। लक्ष्य भाषाभन्दा भिन्न अन्य भाषिक व्यवस्थासँग सम्बन्धित त्रुटिलाई अन्तरभाषिक त्रुटि भनिन्छ (भण्डारी, घिमिरे र नेपाल, २०६८, पृ.१४४)। विद्यार्थीहरूले आफ्नो मातृभाषाको प्रभावका कारण कतिपय स्थानमा त्रुटि गरेको देखिएको छ। उनीहरूले 'तिमीहरू गृहकार्य लेख्', 'तँहरू चुप लागो', 'एक जना हात्ति पनि आयो' भन्ने वाक्यको प्रयोग गरेका छन्। मगर भाषामा आदरगत भेद भए पनि व्यवहारमा कम प्रयोग हुने हुँदा मगर भाषी विद्यार्थीले आदरमा त्रुटि गरेको देखिन्छ। विद्यार्थीहरूले गरेका त्रुटिलाई गम्भीरताका आधारमा विश्लेषण गर्दा अर्थबाधक र अर्थ अबाधक दुवै प्रवृत्तिका त्रुटिहरू गरेको पाइएको छ। त्रुटि हुँदा अर्थ नबुझिने खालका त्रुटि बढी गम्भीर प्रकृतिका हुन्छन्। अर्थ बुझ्न गाह्रो हुने गरी गर्ने त्रुटिलाई कर्डर अर्थबाधक त्रुटि मान्दछन्।

त्रुटि गर्ने विद्यार्थी एक विद्यार्थीले 'मेरोसाथिहरू सि.जि घुम्न गएको थियो' भन्ने वाक्यको प्रयोग गरेको पाइयो जुन वाक्यमा 'मेरो साथीहरू' नाम पदावली त्रुटिपूर्ण देखिन्छ। यसमा शीर्ष पद 'साथीहरू' र 'मेरो ' विशेषक पद हो। यहाँ शीर्ष र विशेषका बिच वचनगत सङ्गति मिलेको देखिदैन। शीर्ष 'साथीहरू' बहुवचनमा भएपछि विशेषक पनि बहुवचन 'मेरा' हुनुपर्नेमा 'मेरो' एकवचनको प्रयोग गरी त्रुटि गरेको पाइयो। त्रुटि गरेकी अर्की विद्यार्थीले 'नराम्रो केटाहरू मलाई मन पर्दैन', 'सानो बालकहरूभित्र गए', 'बाटोको छेउछेउमा ठुलो घरहरू थियो', 'मेरो दाजु लाहुरे हो', 'मरो बाबा बुढो छन्' भन्ने वाक्यहरूको प्रयोग गरेको देखिएको छ। यी वाक्यहरूमा प्रयोग गरिएका नाम पदावलीहरू 'नराम्रो केटाहरू', 'सानो बालकहरू' र 'ठुलो घरहरू' मा शीर्ष अनुरूपको विशेषक चयन हुन सकेको पाइएन। 'नराम्रो केटाहरू'मा 'केटाहरू' शीर्ष पद हो भने 'नराम्रो' विशेषक पद हो। यहाँ शीर्ष केटाहरू बहुवचनमा भएपछि विशेषक पनि बहुवचनमा नराम्रा हुनुपर्नेमा 'नराम्रो' एकवचनको प्रयोग गरिएको छ। दोस्रो वाक्यमा प्रयोग गरिएको नाम पदावलीमा पनि शीर्ष र विशेषकका बिच वचनगत सङ्गति मिलेको छैन। 'सानो बालकहरू' पदावलीमा 'बालकहरू' शीर्ष हो भने 'सानो' विशेषक हो। यहाँ शीर्ष बहुवचनमा भएपछि विशेषक पनि बहुवचन साना प्रयोग गनुपर्नेमा 'सानो' एकवचनको ज्ञण्घ प्रयोग गरिएको छ। तेस्रो वाक्यमा आएको 'ठुलो घरहरू' पदावलीमा 'घरहरू' शीर्ष पद हो भने 'ठुलो' विशेषक हो। यहाँ शीर्ष बहुवचनमा छ तर विशेषक भने एकवचनमा छ त्यसैले शीर्ष र विशेषकका बिच सङ्गति नमिलेको देखियो।

वाक्यगठनका विविध पक्षहरूमध्ये लिङ्ग पनि एक हो । पुरुष, स्त्री र नपुङ्सक छुट्याउने व्याकरणिक कोटिलाई लिङ्ग भनिन्छ। लिङ्ग नामसँग सम्बन्धित व्याकरणिक कोटि हो। पुरुष जातिलाई बुझाउनेलाई पुलिङ्ग र स्त्री जातिलाई बुझाउनेलाई स्त्रीलिङ्ग भनिन्छ (अधिकारी, २०७५, पृ. ८४)। नेपाली भाषामा पुलिङ्ग र स्त्रीलिङ्ग गरी दुई प्रकारका लिङ्ग छन्। यस अध्ययनका क्रममा सोह्र जनामध्ये छ जना विद्यार्थीहरूले स्त्रीलिङ्गमा त्रुटि गरेको पाइयो र पुलिङ्गमा आठ जनाले त्रुटि गरेको पाइयो भने दुई जनाले दुवैमा त्रुटि गरेको पाइयो। विषयगत प्रश्नमा 'पुलिङ्ग र स्त्रीलिङ्ग जनाउने क्रियापद प्रयोग गरी एउटा खेलकुद कार्यक्रमको वर्णन गर्नुहोस्' भनेर सोधिएको थियो। भाषावैज्ञानिक एस.पिट कर्डरका अनुसार विकासशीलताका आधारमा त्रुटि व्यवस्थित, अव्यवस्थित र उत्तरव्यवस्थित गरी तीन खालका हुन्छन्। विद्यार्थीहरूले गरेका लिङ्गत त्रुटिहरूलाई विकासशीलताका आधारमा हेर्दा उत्तरव्यवस्थित प्रकारका त्रुटिहरू बढी गरेको पाइयो। यस्ता त्रुटिहरू असावधानीका कारणले जन्मन्छन्।

विद्यार्थीहरूका वचनका आधारमा नाम पदावली र क्रिया पदावली बिचको सङ्गतिगत त्रुटि पहिचानका लागि एउटा विषयगत प्रश्न र एउटा स्वतन्त्र लेखनसँग सम्बन्धित प्रश्न सोधिएको थियो । 'वचन जनाउने क्रियापद प्रयोग गरी एउटा वनभोज कार्यक्रमको वर्णन गर्नुहोस्' भन्ने विषयगत प्रश्न रहेको थियो । यस प्रश्नको उत्तर लेख्ने क्रममा विद्यार्थीहरूले बहुवचनका कर्तासँग बहुवचनका क्रियापद लेख्नुपर्ने ठाउँमा 'गयो', 'हिड्यो', 'लाग्यो' जस्ता एकवचनका क्रियापदहरूको प्रयोग गरी त्रुटि गरेको पाइएको छ। बहुवचनका शब्दहरू प्रयोग गर्नुपर्ने ठाउँमा एकवचनका शब्दहरूहरू लेखेको पाइएको छ। विद्यार्थीहरूले मान्छेहरू लेख्नुपर्ने ठाउँमा 'मान्छे' राखिएका थिए भन्ने बहुवचनको क्रिया पदावली प्रयोग गर्नुपर्ने ठाउँमा 'राखेको थियो' भन्ने एकवचनको पदावलीको प्रयोग गरेको पाइयो। कर्डरका अनुसार उद्देश्य र विधेयका बिच सङ्गति नमिल्नु वाक्यगत त्रुटि हो।

पुरुषगत आधारमा नाप र क्रिपबिचको सङ्गतिगत त्रुटिको समग्र स्थितिहेर्दा मगर र थारू भाषी विद्यार्थीका पुरुषगत त्रुटि गरेको पाइयो। उनीहरूले विभिन्न पुरुषगत त्रुटि भएका वाक्यहरूको निर्माण गरेका छन्। तृतीय पुरुषको कर्ता तिनीसँग द्वितीय पुरुषको क्रिया 'डुल' को प्रयोग, तृतीय पुरुष कर्ता उनीहरूसित द्वितीय पुरुषको क्रिया 'डुल' को प्रयोग त्यस्तै प्रथम पुरुषको कर्ता मसँग तृतीय पुरुषको क्रिया 'लेख्यो' प्रयोग गरी कर्ता र क्रियाका बिच पुरुषगत सङ्गति नमिलेका त्रुटिपूर्ण वाक्य बनाएको पाइयो।

आदरगत आधारमा नाप र क्रिपबिचको सङ्गतिगत त्रुटिको समग्र स्थितिलाई हेर्दा आदरका आधारमा विद्यार्थीहरूले गर्ने नाम पदावली र क्रिया पदावलीका बिचको सङ्गतिगत प्रयोगमा त्रुटि पहिचानका लागि विषयगत र स्वतन्त्र लेखनसँग सम्बन्धित प्रश्न सोधिएको थियो । विद्यार्थीहरूले 'मेरो घरमा पाँच जना परिवार छन्', 'दाइले एघार मा पढ्छ', 'दिदी विदामा वसन्तपुर घुम्न जान्छिन्',जस्ता विभिन्न आदरगत आधारमा कर्ता र क्रियाका बिच सङ्गति नमिलेका वाक्यहरूको प्रयोग गरी त्रुटि गरेका छन् ।

प्रस्तुत अध्ययनका क्रममा विद्यार्थीहरूले व्याकरणात्मक र शब्दभण्डारगत त्रुटिहरू गरेको भेटियो । जस्तैः पनि लेख्नु पर्नेमा 'पनी', पानी लेख्नुपर्नेमा 'पानि', 'जाऔँ' लेख्नु पर्नेमा 'जाम', पर्छ, गर्छलाई 'पर्‌छ', 'गर्‌छ' भन्ने जस्ता त्रुटिहरू गरेको पाइएको छ । प्रस्तुत अध्ययनका क्रममा विद्यार्थीहरूले गरेका त्रुटिहरूलाई व्यापकताका आधारमा हेर्दा आंशिक त्रुटि र समग्र त्रुटि गरी दुई खालका त्रुटि गरेको पाइएको छ । खास शब्द वा पदसँगमात्र सम्बन्धित त्रुटिहरू आंशिक प्रकृतिका त्रुटिहरू हुन् । यस्ता त्रुटिहरू अर्थ अबाधक प्रकृतिका हुन्छन् । विद्यार्थीहरूले 'शिक्षक आयो', ' मामा गयो', 'दिदी आउँछ' भन्ने आंशिक त्रुटिहरू गरेका छन् । वाक्यका एकभन्दा बढी पद वा पदावलीसँग सम्बन्धित त्रुटि समग्र त्रुटि हो (भण्डारी, घिमिरे र नेपाल, २०६८, पृ.१४४) । विद्यार्थीहरूले गरेका त्रुटिलाई स्वरूपका आधार मा विश्लेषण गर्दा लोपगत तथा थपोटगत त्रुटिहरू गरेको पाइयो । भाषाका सिकारुले गरेका त्रुटिमा कुनै कुरा लोप भएको छ भने त्यस्तो त्रुटि लोपगत त्रुटि हो । यसअन्तर्गतका विद्यार्थीहरूले सुनवललाई 'सुनोल', बुटवललाई 'बुटोल', नवलपरासीलाई 'नलपरासी' जस्ता त्रुटिहरू गरेको पाइएको छ । थपोटगत त्रुटि भनेको भाषाका सिकारुले गर्ने त्रुटिमा कुनै कुरा थप भएर हुने त्रुटि हो । विद्यार्थीहरूले स्थायीलाई 'इस्थायी', प्रदानलाई 'परदान', गर्छनलाई 'गरछन' जस्ता थपोटगत त्रुटि गरेको पाइयो । विद्यार्थीले गरेका त्रुटिहरूलाई औचित्यका आधारमा विश्लेषण गर्दा औचित्यपूर्ण त्रुटि र अनौचित्यपूर्ण त्रुटि गरी दुई प्रकृतिका त्रुटिहरू गरेको भेटियो । व्याकरणिक दृष्टिले मात्र त्रुटिपूर्ण छ तर सन्दर्भ अनुरूप त्रुटि छैन भने त्यस्तो त्रुटिलाई औचित्यपूर्ण त्रुटि भनिन्छ । यस शोधका क्रममा विद्यार्थीहरूले 'सरिताले चाउचाउ ल्याएकि छ', 'बहिनी बजार गएकी छ' भन्ने जस्ता सन्दर्भगत औचित्यता देखिने तर व्याकरणगत दृष्टिले स्वीकार गर्न नसकिने त्रुटि गरेको पाइएको छ त्यस्तै व्याकरण र सन्दर्भ दुवै दृष्टिले भएको त्रुटि अनौचित्यपूर्ण त्रुटि हो । विद्यार्थीहरूले प्रयोग गरेका वाक्यभित्र प्रयुक्त पद, पदावली, वाक्यांशजस्ता भाषिक एकाइ अर्थ, वक्ता, स्रोता विषय, प्रसङ्ग र परम्परा सापेक्षको हुन सकेको देखिएन ।

विद्यार्थीहरूका वाक्यगठनगत त्रुटिका कारणहरूको पहिचानका लागि सङ्कलित सामग्रीहरूको विश्लेषण गर्दा मातृभाषाको प्रभाव, हाम्रा परम्परागत शिक्षण पद्धति, पाठ्यसामग्री तथा बहुभाषिक कक्षामा शिक्षण गर्ने शिक्षक पनि त्रुटिका कारक देखिएका छन् । नेपाली भाषा शिक्षणमा परम्परागत उपेक्षित व्याख्यान पद्धति रहेको, आधुनिक विधि र प्रविधिहरूको प्रयोग अत्यन्त कम हुने गरेको, साथै बहुभाषिक कक्षामा शिक्षण गर्ने शिक्षक योग्य र तालिम प्राप्त हुन नसक्नु पनि त्रुटिका कारण देखियो । नेपाली भाषा शिक्षण गर्ने शिक्षकलाई दुवै भाषा बिचको समानता र भिन्नताबारे राम्रो ज्ञान नहुनु यसको कारण भेटियो । उपयुक्त पाठ्यसामग्री चयन गर्न नसक्नु, उपयुक्त शैक्षिक सामग्री, विधि र क्रियाकलापहरू अपनाउन नसक्नु, बहुसङ्ख्यक थारू मातृभाषी विद्यार्थीहरू भएको कक्षामा बोलचालको भाषाको रूपमा थारू भाषाको नै प्रयोग गरिनु, विद्यार्थीहरूलाई कक्षाकोठामा नेपाली भाषाको प्रयोगमा प्रोत्साहन नगर्नुजस्ता कारणहरू देखिएका छन् ।

निष्कर्ष

माध्यमिक तहमा अध्ययनरत सुनवल नगरपालिका क्षेत्रभित्रका मगर मातृभाषी विद्यार्थीहरूले नेपाली भाषाको सिकाइ गर्ने क्रममा वाक्यगठनमा गर्ने त्रुटिहरूको अध्ययन तथा विश्लेषण गर्दा विद्यार्थीहरूले वाक्यगठनमा नाम पदावली, क्रिया पदावली, नाप र क्रिपका बिच लिङ्ग, वचन, पुरुष, आदरका आधारमा सङ्गति मिलाउने क्रममा त्रुटि गरेको देखिन्छ। विद्यार्थीहरूले पुरुषगत त्रुटि सबैभन्दा बढी गरेका छन्। उनीहरूले प्रथम पुरुषका कर्तासँग तृतीय पुरुषका क्रियापदहरूको प्रयोग गरी त्रुटि गरेको पाइयो। त्यसैगरी तृतीय पुरुषका क्रियाहरूको लेखनमा पनि त्रुटि गरेको पाइयो। विद्यार्थीहरूले उच्च आदरका कर्तासँग सामान्य आदरका क्रियापदहरूको प्रयोग गरी आदरगत त्रुटि गर्ने गरेको पाइयो भने सामान्य आदरार्थी कर्तासँग सामान्य आदरका क्रिया प्रयोग गर्दा पनि त्रुटि गरेको भेटियो। उनीहरूले प्रयोग गरेका पदावलीको संरचनाका शीर्षअनुरूपको विशेषक चयनमा त्रुटि गरेको पाइयो। विद्यार्थीहरूले गर्ने त्रुटिका मुख्य कारणमा पहिलो भाषाको प्रभाव, नेपाली भाषा व्याकरणको सैद्धान्तिक ज्ञानको कमी हुनु, निरन्तर अभ्यास नहुनु, नेपाली भाषाको प्रयोग घर, परिवार तथा छरछिमेकमा नहुनु, विद्यालयमा मात्र नेपाली भाषाको प्रयोग सीमित हुनु, विद्यालयमा पनि एकै मातृभाषीबिच कुराकानी हुँदा मातृभाषाकै प्रयोग गरिनु, आधारभूत तहसम्मका विद्यालयहरूमा नेपाली विषय पढाउने शिक्षकले समेत मातृभाषाको प्रयोग गर्नु, नेपाली शब्दभण्डारको कमी हुनु, नेपाली भाषाका वाक्यहरूको गलत सामान्यीकरण गर्नु, विद्यार्थीको लापर्बाही आदि जस्ता मुख्य कारण देखा परेको निष्कर्षमा पुगिएको छ। त्यसकारण विभिन्न भाषिक पृष्ठभूमि भएका विद्यार्थीहरूका भाषा सिकाइका समस्याहरूको समय समयमा खोज तथा अनुसन्धान गरी समाधानका उपायहरू पत्ता लगाएर भाषा शिक्षणमा सुधार गर्नुपर्ने देखिन्छ।

उपयोगिता

प्रस्तुत अध्ययनबाट नेपाली भाषालाई दोस्रो भाषाका रूपमा सिकाइ गर्ने विद्यार्थीका वाक्यगठनगत समस्याको पहिचान भएको छ। त्यसैले विद्यार्थीका दोस्रो भाषा सिकाइसँग सम्बन्धित समस्याको निराकरण गर्न सहयोग पुग्नेछ। दोस्रो भाषाका रूपमा नेपाली भाषा प्रयोग गर्ने वक्ता, भाषा पाठ्यक्रम निर्माताहरू, विद्यार्थी, शिक्षकहरू र भावी अध्ययनकर्ताहरूका लागि उपयोगी देखिन्छ। बहुभाषिक कक्षामा शिक्षण सिकाइ क्रियाकलाप सञ्चालन गर्न नीतिगत रूपमा प्रस्तुत अध्ययन उपयोगी रहनेछ। यस अध्ययनबाट विद्यालय तहमा वाक्यगठन शिक्षण क्रियाकलाप सुधार गर्न सहयोग पुग्नेछ। यो अध्ययन विद्यार्थीको क्षमता, स्तर र आवश्यकताअनुरूप विषयवस्तु, शिक्षण सामग्री र शिक्षण विधिको छनोट गर्न उपयोगी देखिन्छ। भाषा पाठ्यक्रम निर्माता, पाठ्यपुस्तक लेखक, भाषाको शिक्षण तथा त्रुटि विश्लेषण र नेपाली भाषाको आधिकारिक रूप तयार पार्न नीतिगत तहमा यो अनुसन्धान उपयोगी हुने देखिन्छ। यस अध्ययनको प्राप्तिका रूपमा नेपाली भाषाको व्याकरण शिक्षणमा अभ्यासको कमी, उपयुक्त शिक्षण विधिको अभाव, तालिम प्राप्त शिक्षकको अभाव, शैक्षिक सामग्रीको उचित प्रयोग नहुनु जस्ता कुराहरू देखाएको छ। त्यसैले यो पाठ्यक्रम निर्माण, पाठ्यपुस्तक लेखन र सम्पादन, नीति निर्माताहरू तथा भाषा पाठ्यक्रम निर्माताहरूका लागि पनि उपयोगी हुने देखिन्छ।

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Exploring the Influence of STARA Awareness on Job Outcomes and Well Being Outcomes among University Level Teachers

Supuspa Bhattarai
Research Scholar
Faculty of Commerce
Siddharth University
Email: bhattarai.supuspa@gmail.com
ORCID: https://orcid.org/0000-0001-9311-8232

Shivam Shukla, Ph.D.
Assistant Professor
Faculty of Commerce
Siddharth University
Email: shivamshukla@suksn.edu.in
ORCID: https://orcid.org/0000-0002-8665-0359

Abstract : *The rise of Industry 4.0, driven by STARA (Smart Technology, AI, Robotics, and Algorithms), has transformed business sectors, yet its impact on higher education particularly among teaching faculty in developing contexts like Nepal remains understudied. Grounded in the Job Demands-Resources (JD-R) theory, Career Planning theory and Job Insecurity theory, this study investigates how STARA awareness* influences *job outcomes* (organizational commitment, career satisfaction, turnover intentions) and *well being outcomes* (depression, cynicism). This study aims to explore the relationship between STARA Awareness on Job Outcomes and Well Being Outcomes. These relationships were assessed using multivariate technique i.e. MANOVA from the responses collected via online and physical contact from 133 university level teachers working in and in different affiliated colleges of *Tribhuvan University, Pokhara University, Purbanchal University and others. Using a quantitative survey design, data were analyzed via MANOVA, revealing a significant overall effect of STARA awareness on combined outcomes* ($p < .05$). *Follow-up ANOVA* showed STARA awareness significantly *impacted organizational commitment* ($F = 2.708$, $p < .01$) *and depression* ($F = 2.125$, $p < .05$), *but had no significant impact on career satisfaction, turnover intentions, or cynicism. Notably, well being outcomes fully mediated* the STARA Awareness and Job Outcomes relationship. *Practical implications* highlight the need for universities to implement *STARA training programs* to reduce depression risks and strengthen organizational commitment, while policymakers should address *automation anxiety* through institutional support. By bridging *JD-R theory* with the *employee mental health* discourse, this study offers actionable insights for academia and HR professionals navigating the STARA era.

Keywords: *STARA Awareness, Job and Well Being Outcomes, Employee Mental Health, Automation Anxiety*

Introduction

The emergence of the Fourth Industrial Revolution has brought about swift progress in intelligent technologies that are progressively taking over tasks traditionally performed by human workers. Research forecasts indicate approximately 33% of current occupations may become automated (Frey & Osborne, 2017). The widespread implementation of STARA (Smart Technologies, Artificial Intelligence, Robotics, and Algorithms) across multiple sectors has created substantial transformations in social structures, daily life, and employment landscapes (Almada-Lobo, 2016; Ivanov & Webster, 2017). As these technologies enter workplaces, workers often experience apprehension about their professional futures, a phenomenon termed STARA awareness (Bankins et al., 2024). This concept refers to employees' realization that their positions could potentially be assumed by advanced technological systems, representing a precarious circumstance with negative implications for workers (Brougham & Haar, 2018).

Academic investigations have revealed that STARA awareness can impair various aspects of work-life including psychological security, dedication to organizations, job involvement, contentment with work, and performance efficiency (Kong et al., 2021; Ding, 2021), while simultaneously elevating levels of occupational exhaustion and propensity to leave jobs (Mahlasela & Chinyamurindi, 2020; Li et al., 2019), consequently adversely influencing long-term career viability. Nevertheless, contemporary research is increasingly highlighting potential beneficial outcomes of STARA awareness for professional growth (Wang et al., 2022). Specifically, studies demonstrate that when workers effectively comprehend and adjust to technological integration, they may experience improved psychological outcomes, including strengthened internal drive for their work (Liang et al., 2022). This illustrates the ambivalent characteristics of STARA awareness's influence on workers (Ding, 2021). Consequently, examining strategies to amplify the constructive aspects of STARA awareness while reducing its damaging consequences has become particularly crucial and important to be studied. Fundamentally, STARA awareness embodies the occupational anxiety and instability workers feel when confronting the possibility of technological replacement (Mahlasela & Chinyamurindi, 2020).

The implementation of STARA technologies extends far beyond low-wage, low-skill occupations. Advanced algorithms are now performing complex tasks such as legal document analysis, the Clearwell system famously reviewed and categorized 570,000 documents within two days (Frey & Osborne, 2013), work traditionally handled by legal professionals. Similarly, automated reporting systems are becoming increasingly prevalent in business and media sectors. Meanwhile, the decreasing costs of high-precision robotic systems are making automation more accessible (Frey & Osborne, 2013). A comprehensive analysis of 702 occupations revealed significant computerization risks across various professions, including accounting, market

analysis, aviation, customer service, and administrative roles (Frey & Osborne, 2013). The impact of STARA spans multiple sectors including healthcare (Bloss, 2011; Lorentziadis, 2014), education (through mass online learning platforms), transportation, and primary industries. This groundbreaking research estimated that 47% of current jobs face potential automation (Frey & Osborne, 2013), with many being well-compensated, middle-class service sector positions. This technological shift coincides with growing income inequality trends (Goos & Manning, 2007; Autor & Dorn, 2013), particularly concerning given that in New Zealand, the wealthiest 20% of households control approximately 70% of total household wealth (Statistics New Zealand, 2016), highlighting the expanding socioeconomic divide (McCammon, 2016). Even professions not directly at risk may experience secondary effects from STARA adoption in related industries. For instance, autonomous vehicle technology could eliminate demand for driving instructors, license examiners, insurance assessors, and auto body repair specialists by reducing accident rates. Furthermore, the potential for overnight autonomous travel could disrupt hospitality and airline industries (Zaldivar, 2015). As The Economist (2014) cautions, emerging technologies may permanently eliminate certain job categories without creating equivalent replacements. In Nepal**,** limited empirical research exists on how teaching faculty interpret STARA's role in their professional and psychological well being. With regard to the influence of STARA on changes in an academic setting, the objective of this study is two-fold: (a) to assess the impact of STARA awareness on job outcomes and wellbeing outcomes, and (b) to investigate the mediating effect of employee wellbeing on the relationship between STARA awareness and job outcomes.

Literature Review

Fourth Industrial Revolution, STARA in Education

The evolution of workplace dynamics has historically followed predictable patterns of transformation. In most developed economies, we've witnessed a substantial decline in primary (agricultural/mining) and secondary (manufacturing) sectors (Dennis, 1978; Charles et al., 2013), with displaced workers typically transitioning into service-oriented roles as new employment opportunities emerged (Spohrer & Maglio, 2008). Previous industrial revolutions driven by textile mechanization, steam power, transportation advances, assembly lines, labor specialization, electrification, and communication breakthroughs (Jensen, 1993) particularly manufacturing electrification significantly altered skill requirements across industries (Gray, 2013). Historically, technological displacement of lower-skilled positions often generated demand for clerical and managerial roles (Gray, 2013), but the current technological paradigm shift may differ fundamentally. The 21st century has ushered in the Fourth Industrial Revolution (Industry 4.0), a transformative era defined by the rapid digitalization of global industries (World Economic Forum, 2016; Xu et al., 2018). Far from being a temporary trend, Industry 4.0 represents a profound

and disruptive shift in production and business models (Ardito et al., 2019; Buer et al., 2018; Schroeder et al., 2019). Originating with the German-coined term *"Industrie 4.0"* in 2011, this movement has since spurred governments and corporations worldwide to prioritize technological integration (Ghobakhloo, 2018; Nascimento et al., 2019). Historically, industrial progress from the 18th century mechanization to today's smart factories has grappled with a central dilemma: how to optimize output from increasingly scarce natural resources to meet rising demand, while mitigating ecological degradation and social inequities (Beier et al., 2018; Müller et al., 2018).

The integration of STARA technologies threatens to eliminate middle-tier occupations at an unprecedented scale (Feng & Graetz, 2015), with service sector positions being particularly vulnerable due to their significant contribution to operational costs. Unlike previous transitions, displaced service workers may lack an emerging "fourth" sector for immediate re-employment. Experts suggest STARA's impact on services will mirror previous industrial revolutions in magnitude, unfolding gradually over coming decades (Brynjolfsson & McAfee, 2011). Technological advancement has driven labor market polarization since the mid-20th century (Mishel et al., 2013), a phenomenon Autor and Dorn (2013) attribute to shifting consumer preferences toward product diversity combined with increasingly affordable automation of routine tasks. This research proceeds on two key premises: first, that STARA technologies are precipitating a service sector revolution; second, that widespread workforce displacement may occur imminently (Frey & Osborne, 2013). The potential consequences remain uncertain - whether new employment categories will emerge or whether middle- and lower-skilled workers will face deteriorating conditions. Prominent voices like Stephen Hawking have cautioned that current automation trends may exacerbate socioeconomic disparities (Rathi, 2015). Crucially, existing research lacks empirical data regarding workforce awareness of these impending changes and whether professionals are adapting their career trajectories accordingly. This gap in understanding informs our subsequent discussion of career planning strategies and hypothesis development.

The education sector has witnessed growing recognition of Artificial Intelligence in Education (AIED) over the past three decades (Hwang et al., 2020). AIED's capabilities have prompted discussions about potentially replacing academic roles due to its extensive automation potential (Hwang et al., 2020). Employees' willingness to adopt digital technologies significantly influences their workplace well being (Weilage & Stumpfegger, 2022). However, AI often carries negative associations, as it raises concerns about job security and future prospects, potentially harming psychological well being (Rhee & Jin, 2021; Khanyane, 2023). Pauceanu et al. (2020) predict that the Fourth Industrial Revolution will transform employment landscapes, rendering many current occupations obsolete through technological advancements. Brougham and Haar (2018) identify two primary psychological impacts of STARA technologies: feelings of

hopelessness and tendencies toward vilification. While AI transforms higher education teaching environments, Popenici and Kerr (2017) emphasize that human qualities like emotional expression and natural responses remain challenging to replicate algorithmically. Higher education pedagogies and teaching methodologies are undergoing reevaluation as institutions adapt to technological changes (Popenici & Kerr, 2017). In the South African context, Oosthuizen and Mayer (2019) highlight an academic skills gap regarding STARA awareness, which may exacerbate workplace anxiety about technological integration. Many nations are working toward 2030 objectives to properly equip educators for the evolving digital workplace (Hwang et al., 2020). Moreover, most academics view STARA positively for streamlining tasks and enabling greater focus on meaningful teaching and student support, though they recognize the need for upskilling to adapt to technological changes while maintaining the irreplaceable human elements of education (Grant & Oosthuizen, 2024).

STARA and Job Outcomes

STARA awareness captures how employees perceive the impact of emerging technologies like AI, robotics, and automation on their career prospects. This concept builds upon career-planning theory (Greenhaus & Kopelman, 1981), which traditionally focused on personal skills, job opportunities, and work-life balance. However, the rapid advancement of STARA technologies necessitates an expansion of this framework, as automation may render certain careers obsolete regardless of an individual's competencies or preferences (Frey & Osborne, 2013). Modern career planning must now incorporate technological disruption as a critical factor, transforming it into a more dynamic, ongoing process (Zikic & Klehe, 2006) that accounts for the growing prevalence of boundaryless careers (Arthur & Rousseau, 2001) rather than traditional organizational career paths. Research demonstrates that career planning significantly influences work attitudes, including organizational commitment, career satisfaction, and turnover intentions (Aryee & Debrah, 1993). However, STARA awareness may undermine these outcomes by creating job insecurity and perceived threats to career progression. When employees anticipate technological displacement, they may experience reduced career satisfaction and organizational commitment, as their sense of control over their professional future diminishes (Chen et al., 2004). This aligns with findings that career-planning mismatches can increase turnover intentions (Steffy & Jones, 1988), suggesting that STARA awareness could prompt employees to seek alternative employment opportunities in response to technological disruptions in their current roles. Similarly, Hong et al. (2025) found that employees' awareness of Smart Technology, Artificial Intelligence, Robotics, and Algorithms (STARA) enhances career sustainability through increased learning motivation and reduced perceptions of resource loss based on theoretical model application of Conservation of Resources Theory. In addition to that, the study showed that when employees become aware of STARA

technologies, they experience resource-related stress which activates adaptive behaviors i.e. a process that exemplifies Conservation of Resources Theory in technological work environments (Hong et al., 2025). The following section formalizes these expectations into testable propositions.

H1: STARA Awareness has a significant effect on organizational commitment.

H2: STARA awareness has a significant effect on career satisfaction.

H3: STARA awareness has a significant effect on turnover intentions.

STARA and Well Being Outcomes

STARA awareness is expected to impact not only job-related outcomes but also employee well being, as perceptions of career identity and success shape psychological health (Mirvis & Hall, 1994; Wiese et al., 2002). According to Job Insecurity Theory, the anticipation or fear of losing one's job can have detrimental effects on an individual's well being specially mental health, workplace attitudes, and overall job effectiveness i.e. job performance (Greenhalgh & Rosenblatt, 1984).When employees foresee limited career prospects due to technological disruption, their mental health may suffer, with job insecurity linked to increased stress and burnout (Dekker & Schaufeli, 1995). This uncertainty may be particularly harmful when workers lack clarity about their professional futures. Employees aware of STARA's potential threats may experience heightened anxiety, while those unaware might cope better (Chen et al., 2004). Additionally, such awareness could lead to depression (low motivation and pleasure) and workplace cynicism (detachment and negativity) as coping mechanisms (Axtell et al., 2002; Roche & Haar, 2013), suggesting STARA awareness may negatively influence both job attitudes and psychological well being. The following section reflects the above phrased reviews into testable hypothesis.

H4: STARA awareness has a significant effect on depression.

H5: STARA awareness has a significant effect on cynicism.

Well Being Outcomes as a Mediator on STARA Awareness and Job Outcomes

The relationship between STARA (Smart Technology, Artificial Intelligence, Robotics, and Algorithms) awareness and job-related outcomes (e.g., organizational commitment, career satisfaction, and turnover intentions) may be mediated by well being outcomes, particularly depression and cynicism. Research suggests that technological disruptions in the workplace can trigger psychological distress, which in turn influences work attitudes and behaviors (Dekker & Schaufeli, 1995; Chen et al., 2004). Employees who perceive their jobs as vulnerable to automation may experience heightened anxiety, leading to decreased motivation and increased detachment (Axtell et al., 2002; Roche & Haar, 2013). This aligns with the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007), which posits that chronic stressors (such as job insecurity due to STARA) deplete emotional resources, resulting in burnout and reduced engagement.

Empirical studies support this mediation pathway. For instance, job insecurity has been linked to depression, which subsequently predicts lower organizational commitment and higher turnover intentions (Sverke et al., 2002). Similarly, cynicism a core dimension of burnout mediates the effects of workplace stressors on job performance and satisfaction (Maslach et al., 2001). In the context of STARA, employees who feel threatened by automation may develop depressive symptoms (e.g., hopelessness about career growth) and cynicism (e.g., disengagement from work), ultimately worsening job outcomes (Mirvis & Hall, 1994). These findings underscore the need to examine well being outcomes as a critical mediator in the STARA awareness to job outcomes relationship. Based on the review, this study identifies the need to test the following hypothesis.

H6: Well Being Outcomes mediates the relationship between STARA Awareness and Job Outcomes.

The following research frameworks for the study has been developed based on literature review to test the above mentioned hypothesis for the study and are outlined as under:

Research Framework 1

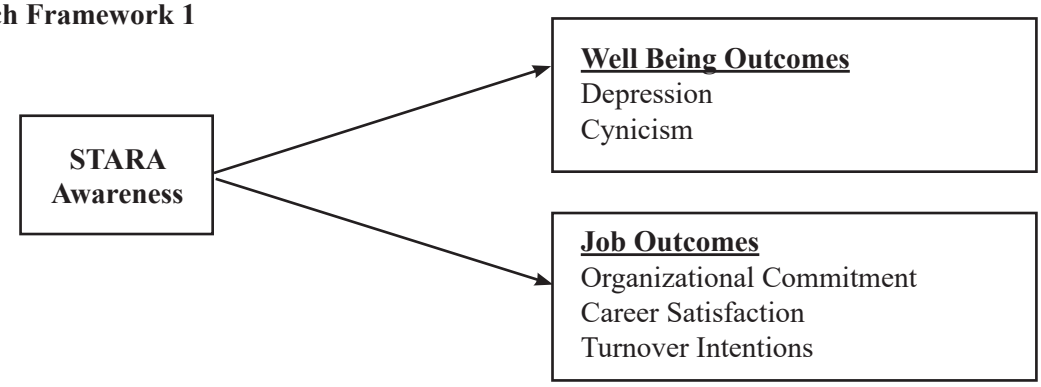

Figure 1: Research Framework 1

Source: *Adapted from Brougham and Haar (2018)*

Research Framework 2

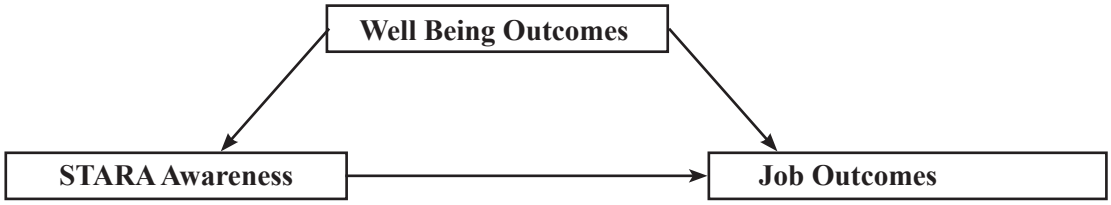

Figure 2: Research Framework 2

Source: *Adapted from Brougham and Haar (2018) and Author's own compilation (2025)*

Methodology

This study adopts a quantitative survey design to examine the relationship between STARA Awareness, Well Being Outcomes (depression and cynicism), and Job Outcomes (organizational commitment, career satisfaction, and turnover intentions). A mediation analysis is employed to assess whether Well Being Outcomes as a variable mediate the effect on the relationship between STARA Awareness and Job Outcomes. The target population consists of university level teachers of Nepal**.** A purposive sampling approach is used, with participants contacted for questionnaire distribution via professional networks (LinkedIn), social media platforms (Facebook), emailing, and personal visits. The sample size is determined using G*Power 3.1 (Faul et al., 2007), targeting a minimum of 218 respondents to ensure adequate statistical power ($\alpha = 0.05$, power = 0.95, small effect size= 0.50) where just 133 responses were collected with the response rate of 62.44%. All constructs are measured using validated Likert-scale questionnaires (5-point scales, 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree) except for depression but with different response options i.e. 5 indicates Always, 4 indicates Often, 3 indicates Sometimes, 2 indicates Rarely and 1 indicates Never where STARA awareness has 4 items adopted from Brougham and Haar (2018), organizational commitment has 18 items adopted from Meyer et al. (1993), career satisfaction has 5 items adopted from Greenhaus et al. (1990), turnover intentions has 4 items adopted from Kelloway et al. (1999), depression has 3 items adopted from Axtell et al. (2002) and cynicism has five items adopted from Mashlach et al. (1996). All constructs has good reliability statistics with croanbach alpha of .892 for STARA awareness, .840 for OC, .928 for CS, .895 for TI, .811 for depression, .761 for cynicism and satisfies the criteria for acceptable scales for measurement i.e. $\alpha \geq .70$ indicates adequate internal consistency (Nunally et al., 1994).

Results, Discussion and Conclusions

Results

Table 1

Respondents Profile and Descriptive Statistics

Profile of Respondents with Descriptive			
Demographic Variables	***Labels***	***Frequency***	***Percentage***
Designation	Professor	6	4.5
	Assoc. Professor	17	12.8
	Asst. Professor	81	60.9
	Part Timers	29	21.8

Age	≤25	0	0
	26-35	23	17.3
	36-45	59	44.4
	46-55	42	31.6
	≥56	9	6.8
Marital Status	Married	125	94.0
	Unmarried	8	6.0
Status of the Job	Permanent	104	78.2
	Temporary	29	21.8
University	Tribhuvan University	98	73.7
	Pokhara University	23	17.3
	Purbanchal University	7	5.3
	Nepal Open University	1	.8
	Mid-West University	2	1.5
	Lumbini Buddhist University	2	1.5
Education	PhD and Above	32	24.1
	Mphil	32	24.1
	Masters	69	51.9
Gender	Male	126	94.7
	Female	7	5.3
	Others	0	0
Experience	<1	3	2.3
	1-10	49	36.8
	11-20	49	36.8
	21-30	28	21.1
	>30	4	3.0

The sample as mentioned in Table 1 comprised 133 academic professionals from Nepalese universities, predominantly male (94.7%), married (94.0%), and holding permanent positions (78.2%). Most participants were assistant professors (60.9%), aged 36-45 years (44.4%), and affiliated with Tribhuvan University (73.7%). The majority held master's degrees (51.9%) and had 1-20 years of teaching experience (73.6% combined), with equal proportions in the 1-10 year

(36.8%) and 11-20 year (36.8%) experience brackets. The sample showed limited diversity in gender representation (only 5.3% female faculty) and age distribution (82.8% aged 36-55 years), reflecting Nepal's academic workforce demographics. Notably, no respondents were under 26 years old, and only 2.3% had less than one year of teaching experience, suggesting the findings primarily reflect established faculty perspectives.

Table 2

Correlation Matrix

Correlations							
Particulars		**STARA Awareness**	**Organizational Commitment**	**Career Satisfaction**	**Turnover Intensions**	**Depression**	**Cynicism**
STARA Awareness	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	133					
Organizational Commitment	Pearson Correlation	-.161	1				
	Sig. (2-tailed)	.065					
	N	133	133				
Career Satisfaction	Pearson Correlation	-.106	.568**	1			
	Sig. (2-tailed)	.223	.000				
	N	133	133	133			
Turnover Intensions	Pearson Correlation	.010	-.392**	-.208*	1		
	Sig. (2-tailed)	.905	.000	.016			
	N	133	133	133	133		
Depression	Pearson Correlation	.209*	-.360**	-.389**	.321**	1	
	Sig. (2-tailed)	.016	.000	.000	.000		
	N	133	133	133	133	133	
Cynicism	Pearson Correlation	.244**	-.335**	-.393**	.422**	.379**	1
	Sig. (2-tailed)	.005	.000	.000	.000	.000	
	N	133	133	133	133	133	133
*. Correlation is significant at the 0.05 level (2-tailed).							
**. Correlation is significant at the 0.01 level (2-tailed).							

In the Table 2, the Pearson correlation matrix revealed several significant relationships among the variables where STARA Awareness showed a positive correlation with Depression (r=.209*, p =.016) and Cynicism (r =.244**, p=.005), suggesting that higher STARA awareness is associated with slightly higher levels of depression and cynicism. Furthermore, no significant correlations with Organizational Commitment (r= -0.161, p = .065), Career Satisfaction (r= -0.106, p =.223), or Turnover Intentions (r = .010, p = .905). Similarly, Organizational Commitment has been strongly positively correlated with Career Satisfaction (r = .568**, p< .001), indicating that employees with higher commitment also reported greater career satisfaction and negatively correlated with Turnover Intentions (r= -0.392**, p< .001), Depression (r = -0..360**, p < .001), and Cynicism (r = -0.335**, p < .001), suggesting that committed employees are less likely to leave, experience depression, or exhibit cynicism. Moreover, Career Satisfaction demonstrated negative relationships with Turnover Intentions (r = -0.208*, p = .016), Depression (r = -0.389**, p < .001), and Cynicism (r = -0.393**, p < .001), implying that satisfied employees are less prone to quitting, depressive feelings, or cynical attitudes. In addition to that, Turnover Intentions is positively associated with Depression (r = 0.321**, p < .001) and Cynicism (r = 0.422**, p < .001), indicating that employees considering leaving their jobs reported higher distress and negativity. Lastly, Depression and Cynicism were moderately positively correlated (r = 0.379**, p < .001), aligning with expectations that emotional exhaustion and negative attitudes coexist.

Table 3
MANOVA Analysis

Multivariate Tests						
Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.981	1164.460[b]	5.000	113.000	.000
	Wilks' Lambda	.019	1164.460[b]	5.000	113.000	.000
	Hotelling's Trace	51.525	1164.460[b]	5.000	113.000	.000
	Roy's Largest Root	51.525	1164.460[b]	5.000	113.000	.000
STARA Awareness	Pillai's Trace	.759	1.396	75.000	585.000	.020
	Wilks' Lambda	.420	1.443	75.000	545.469	.012
	Hotelling's Trace	1.000	1.486	75.000	557.000	.007
	Roy's Largest Root	.466	3.633[c]	15.000	117.000	.000

Table 4

ANOVA Analysis between Subjects Effects

Tests of Between-Subjects Effects						
Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	Organizational Commitment	10.862[a]	15	.724	2.708	.001
	Career Satisfaction	13.029[b]	15	.869	1.290	.219
	Turnover Intensions	12.986[c]	15	.866	.776	.702
	Depression	22.987[d]	15	1.532	2.125	.013
	Cynicism	14.671[e]	15	.978	1.712	.058
Intercept	Organizational Commitment	644.449	1	644.449	2410.267	.000
	Career Satisfaction	734.850	1	734.850	1091.399	.000
	Turnover Intentions	221.852	1	221.852	198.743	.000
	Depression	227.646	1	227.646	315.613	.000
	Cynicism	261.445	1	261.445	457.650	.000
STARA Awareness	Organizational Commitment	10.862	15	.724	2.708	.001
	Career Satisfaction	13.029	15	.869	1.290	.219
	Turnover Intentions	12.986	15	.866	.776	.702
	Depression	22.987	15	1.532	2.125	.013
	Cynicism	14.671	15	.978	1.712	.058
Error	Organizational Commitment	31.283	117	.267		
	Career Satisfaction	78.777	117	.673		
	Turnover Intentions	130.604	117	1.116		
	Depression	84.390	117	.721		
	Cynicism	66.840	117	.571		
Total	Organizational Commitment	1775.278	133			
	Career Satisfaction	1917.760	133			
	Turnover Intentions	727.813	133			
	Depression	703.889	133			
	Cynicism	752.800	133			
Corrected Total	Organizational Commitment	42.145	132			
	Career Satisfaction	91.806	132			
	Turnover Intentions	143.590	132			
	Depression	107.377	132			
	Cynicism	81.511	132			
a. R Squared = .258 (Adjusted R Squared = .163)						
b. R Squared = .142 (Adjusted R Squared = .032)						
c. R Squared = .090 (Adjusted R Squared = -.026)						
d. R Squared = .214 (Adjusted R Squared = .113)						
e. R Squared = .180 (Adjusted R Squared = .075)						

The Table 3 tests whether the independent variable (STARA Awareness) has a significant effect on the combined set of dependent variables (Organizational Commitment, Career Satisfaction, Turnover Intentions, Depression, Cynicism i.e. Job Outcomes and Well Being Outcomes). The key findings state that all multivariate test statistics (Pillai's Trace, Wilks' Lambda, Hotelling's Trace, Roy's Largest Root) are highly significant ($p < .001$), indicating that the intercept-only model explains a substantial portion of the variance. Since the MANOVA is significant, we examine the univariate ANOVAs in Table 4 for each dependent variable to see which specific outcomes are affected by STARA Awareness and follows as mentioned below:

Table 5
Hypothesis Testing (H1:H5)

Dependent Variable	F-statistic	p-value	Effect Size (R^2)	Adjusted R^2	Conclusion
Organizational Commitment	$F(15,117) = 2.708$	.001	0.258	0.163	**H1 Significant**
Career Satisfaction	$F(15,117) = 1.290$	.219	0.142	0.032	H2 Not Significant
Turnover Intentions	$F(15,117) = 0.776$	.702	0.090	-0.026	H3 Not Significant
Depression	$F(15,117) = 2.125$	.013	0.214	0.113	**H4 Significant**
Cynicism	$F(15,117) = 1.712$	.058	0.180	0.075	H5 Marginal (ns)

The Table 5 explains the significant effects of STARA Awareness on Organizational Commitment ($p < .05$) i.e. STARA Awareness has a significant effect ($p = .001$). **$R^2 = 0.258$** → ~25.8% of variance explained (adjusted $R^2 = 0.163$). Similarly, significant effects of STARA Awareness on Depression ($p < .05$) i.e. STARA Awareness has a significant effect ($p = .013$). **$R^2 = 0.214$** → ~21.4% of variance explained (adjusted $R^2 = 0.113$). In addition to that, the table 5 also shows non-significant effects ($p > .05$) of STARA Awareness on Career Satisfaction ($p = .219$) having no effect, on Turnover Intentions ($p = .702$) having no effect and finally on Cynicism ($p = .058$) having marginally non-significant (trend). In overall, Multivariate Analysis (MANOVA) confirms that STARA Awareness has a statistically significant overall effect on the combined dependent variables. The Follow-up ANOVAs reveal that this effect is primarily driven by Organizational Commitment and Depression Levels. Similarly, no significant effects were found for Customer Satisfaction, Turnover Intentions, or Cynicism (though Cynicism showed a marginal trend).

Table 6

Mediation Analysis of Well Being Outcomes on the Relationship between STARA Awareness and Job Outcomes

Variable Relationship (Path)	Coeff (β)	SE	t	P	95% CI (LL, UL)
Total Effect (c)	-0.0823	0.0421	-1.9538	0.0529	[-0.1657, 0.0010]
Direct Effect (c')	-0.0380	0.0416	-0.9119	0.3635	[-0.1204, 0.0444]
Indirect Effect (a×b)	-0.0443	0.0208	-	-	[-0.0927, -0.0121]
Path a (X → M)	0.2083	0.0637	3.2692	0.0014	[0.0823, 0.3344]
Path b (M → Y)	-0.2128	0.0549	-3.8773	0.0002	[-0.3214, -0.1042]

Note. X = STARA Awareness, M = Well Being Outcomes, Y = Job Outcomes. N = 133. Confidence intervals for indirect effect are bias-corrected bootstrap CIs based on 5,000 samples. All coefficients are unstandardized.

The author examined whether Well Being Outcomes mediated the relationship between STARA Awareness and Job Outcomes using Hayes' PROCESS Macro (Model 4) with 5,000 bootstrap samples and is presented in Table 6. The analysis revealed a significant indirect effect, suggesting mediation. The key findings based on total effect model depicts that STARA Awareness showed a marginally significant negative relationship with Job Outcomes (B = -0.0823, SE = 0.0421, p = 0.0529, 95% CI -0.1657, 0.0010]). Similarly, based on mediation pathways Path a (X→M) STARA Awareness significantly predicted Well Being Outcomes (B = 0.2083, SE = 0.0637, p = 0.0014, 95% CI [0.0823, 0.3344]) and Path b (M→Y) Well Being Outcomes negatively predicted Job Outcomes (B = -0.2128, SE = 0.0549, p = 0.0002, 95% CI [-0.3214, -0.1042]).Moreover, based on direct and Indirect effects, the direct effect became non-significant when including the mediator (B = -0.0380, SE = 0.0416, p = 0.3635, 95% CI [-0.1204, 0.0444]) and the indirect effect was significant (B = -0.0443, SE = 0.0208, 95% CI [-0.0927, -0.0121]). Furthermore, the results indicate full mediation, as the total effect was marginally significant, the indirect effect through Well Being Outcomes was significant and the direct effect became non-significant when accounting for the mediator. The negative coefficient for Path b suggests that higher Well Being Outcomes is associated with poorer Job Outcomes in the sample, which may warrant for further investigation. In overall, the results indicate that Well Being Outcomes fully mediates the relationship between STARA Awareness and Job Outcomes hence stating the acceptance of hypothesis H6.

Discussion

The study examined the relationships between STARA Awareness, Well Being Outcomes, and Job Outcomes among Nepalese academic professionals. The MANOVA results revealed significant multivariate effects of STARA awareness on the combined dependent variables (p

< .001). Follow-up ANOVAs demonstrated that STARA Awareness significantly predicted organizational commitment ($p = .001$, $R^2 = 0.26$) and depression levels ($p = .013$, $R^2 = 0.21$), but not career satisfaction, turnover intentions, or cynicism. These findings suggest that STARA Awareness primarily affects work-related attitudes and mental health outcomes rather than job satisfaction or turnover-related variables in this population. The mediation analysis yielded important insights, revealing that Well Being Outcomes fully mediated the relationship between STARA Awareness and Job Outcomes (indirect effect: B = -0.0443, 95% CI [-0.0927, -0.0121]). The negative association between Well Being Outcomes and Job Outcomes was unexpected and warrants further investigation. This counterintuitive finding may reflect measurement issues or unique cultural aspects of the Nepalese academic context where higher well being could correlate with reduced work focus or productivity. The predominantly male (94.7%), married (94.0%), and permanent (78.2%) sample composition suggests these findings may be most applicable to established faculty members in similar cultural contexts. The underrepresentation of female faculty (5.3%) limits generalizability to more gender-balanced academic populations.

In addition to the above discussion, the findings of this study exactly matches with the similar type of study undertaken by Brougham and Haar (2018) in New Zealand among employees working in service sector where STARA Awareness negatively correlates with organizational commitment and career satisfaction and positively correlates with turnover intentions, depression and cynicism. Moreover, as the research findings in this area is very limited in number global studies with similar variables and variable association with each other is difficult to find. Therefore, this study would be a foundational work for other researchers to undertake similar study in different contexts. The study's findings indicate that greater employee awareness of STARA (Smart Technology, Artificial Intelligence, Robotics, and Algorithms) and its relevance to their roles correlates with reduced organizational commitment and career satisfaction. This aligns with Aryee and Debrah's (1993) career-planning model, which posits that effective career planning fosters a positive feedback loop, enhancing career satisfaction and workplace self-esteem. The rise of STARA, however, may disrupt this process, undermining career planning success and exacerbating the instability associated with boundaryless careers a trend likely to intensify with advancing technology. Additionally, employees who perceive STARA as more impactful report stronger negative outcomes, including increased turnover intentions, depression, and cynicism. These results are consistent with prior research, such as Virtanen et al. (2003), which found that unfulfilled career growth expectations are linked to stress, burnout, and intentions to leave an organization. The study's conclusions thus reflect broader concerns about technology driven workplace transformations and their psychological toll on employees. Additionally, the study conducted by Başer et al. (2025) identified the negative effects of STARA awareness on job

outcomes among hotel employees i.e. STARA awareness negatively affected the psychological relationship between individuals and organizations which matches with the study findings of this research where increase in STARA awareness leads to increase in turnover intentions, depression and cynicism.

Conclusion

This study makes several important contributions to understanding STARA Awareness effects in higher education where STARA Awareness significantly impacts organizational commitment and depression levels among faculty, secondly, well being outcomes fully mediates the STARA Awareness-Job Outcomes relationship and the unexpected negative Well Being-Job Outcomes association highlights potential cultural specificities in how technology adoption affects academic work. The findings suggest that universities implementing STARA technologies should develop targeted interventions to maintain organizational commitment, provide mental health support to mitigate depression risks and further investigate the Well Being-Job Outcomes relationship in local contexts. Moreover, policymakers should develop institutional support mechanisms to cope up with anxiety created out of automation as automation and sophisticated technology creates fear for job insecurity resulting into adverse impact on job performance and psychological well being. Lastly, limitations include the cross-sectional design, gender imbalance, and single-country focus. Future research should employ longitudinal designs across more diverse populations to better understand causal relationships and cultural moderators. The unexpected findings regarding Well Being and Job Outcomes particularly merit qualitative investigation to understand the underlying mechanisms in this context.

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Role of Mobile Banking in Bridging the Urban-Rural Financial Gap: Evidence from Gandaki Province

Rajiv Khanal[1]
Lecturer, Western Mega Collage
Lincoln University College

Abstract : *This study examines the impact of mobile banking on financial inclusion across urban and rural areas of Gandaki Province, Nepal. Despite national progress in expanding formal financial services, rural populations continue to face barriers such as geographic isolation, limited digital literacy, and distrust in financial institutions, which sustain disparities in access to banking services. Mobile banking offers a promising approach to bridge this gap by providing accessible, cost-effective, and secure financial services via mobile devices.*

A mixed-methods research design was employed, combining quantitative data collected from 792 respondents with qualitative insights from interviews and focus group discussions. Five key factors access to mobile technology, educational attainment, socioeconomic status, perceived security of mobile banking, and frequency of mobile banking usage were hypothesized to influence financial inclusion. Structural Equation Modeling (SEM) using SmartPLS was applied to test these relationships, with adequate model fit confirmed by multiple indices.

The results indicate that in urban settings all five factors significantly contribute to financial inclusion. In contrast, in rural areas, only socioeconomic status, perceived security, and mobile banking usage frequency were positively associated with financial inclusion. Notably, access to mobile technology and education level did not significantly affect rural financial inclusion, with education exhibiting a negative relationship, possibly reflecting migration effects or unmet expectations among educated rural residents.

These findings underscore the importance of context-specific strategies, including infrastructure improvement, digital literacy programs tailored to rural needs, and trust-building measures, to enhance equitable financial inclusion. The study advances understanding of mobile banking adoption by applying TAM and UTAUT frameworks to distinct geographic contexts within Nepal.

Keywords: *Mobile Banking, Financial Inclusion, Gandaki Province, Urban-Rural Financial Gap, Mobile Banking Adoption, Digital Literacy, Trust in Banking, Ease of Use, PLS-SEM, CFA, Nepal*

Introduction

Access to basic banking services remains a significant challenge for many residents of rural areas, while urban populations often enjoy seamless financial access. This stark gap between urban and rural banking accessibility has persisted despite technological advancements. Mobile banking has emerged as a transformative force in delivering financial services, raising important questions about its effectiveness in enhancing financial inclusion among rural populations in regions such as Kaski and Syangja. There is increasing interest in whether mobile phones, as widely used tools, can democratize banking and bridge long-standing disparities in access. This research examines the extent to which mobile banking helps to narrow the urban-rural financial divide and evaluates its tangible impacts on the livelihoods of farmers, small business owners, and families in these districts.

Financial inclusion is broadly defined as the availability and utilization of essential financial services by all segments of society, particularly the underserved (Mothobi & Kebotsamang, 2024). The importance of financial inclusion is clear in both urban and rural settings, but its significance is heightened among low-income populations. In developing economies, numerous barriers including strict regulatory policies and heavy institutional requirements prevent individuals with limited literacy from opening bank accounts (Klapper & Singer, 2017). This has resulted in ongoing disparities in access, with mobile banking emerging as a promising tool to address such inequalities. Digital technology now makes banking solutions more accessible and affordable, especially for those living far from traditional bank branches. In the Kaski and Syangja districts, mobile banking offers an opportunity for marginalized groups such as smallholders and micro-entrepreneurs, who often face severe financial exclusion to save, transfer funds, and access credit more easily, thereby supporting both individual welfare and local economic development.

The concept of financial inclusion, as outlined by Hannig & Jansen (2010) and Mader (2018), arose in policymaking and research circles in the early 2000s, highlighting the provision of affordable savings, credit, and insurance to traditionally excluded populations. The World Bank further promoted the idea in 2005 through global initiatives focused on poverty reduction (Goldman, 2005). Operationally, financial inclusion involves giving individuals and businesses, particularly those in rural or low-income areas, safe and reliable access to financial tools (Pomeroy et al., 2020). In Nepal, this includes enabling access to mobile banking accounts and microfinance for rural communities, even without formal education or collateral (Dhungana & Chapagain, 2019). The urgency for such initiatives increased after research showed that by 2010, around 40% of adults in developing countries remained outside basic banking services, prompting governments and institutions to promote inclusive financial policies (Groce et al., 2011). Key

indicators of financial inclusion now include rural bank branch density, mobile banking adoption, and the percentage of women with bank accounts.

Despite advancements, considerable disparities in banking access persist within Gandaki Province. Rural inhabitants often face pronounced difficulties in utilizing banking services, a challenge less experienced by their urban counterparts. This disparity reinforces the financial divide, with mobile banking providing a potential avenue to mitigate these challenges by extending services via mobile platforms to those distanced from physical bank outlets (Anyasi & Otubu, 2009; Duncombe & Boateng, 2009). Nevertheless, rural residents encounter substantial obstacles including low levels of digital literacy, insufficient internet connectivity, and mistrust of mobile banking platforms. Research to date has predominantly concentrated on the expansion of mobile banking in urban centers, leaving a knowledge gap regarding the specific challenges encountered by rural users. As a consequence, many rural households still face difficulties in saving, accessing credit, or conducting transactions. This study, therefore, seeks to elucidate the barriers impeding mobile banking adoption in rural areas and propose actionable solutions to enable equitable access to modern financial services.

Further compounding the issue are notable research gaps regarding the impact of mobile banking on rural-urban financial divides in Nepal, specifically within Gandaki Province. Prior analyses have typically emphasized macro-level trends in digital finance growth in urban contexts, where educational attainment and technological infrastructure are generally more favorable. Insufficient attention has been paid to the lived realities of rural populations, particularly women, older adults, and individuals with limited education, who may be disproportionately affected by digital exclusion. While mobile banking services are proliferating, questions remain about their suitability to rural users' needs and the practical measures required to support effective utilization. Evidence suggests that mere access to technology or higher education levels does not automatically translate into increased mobile banking usage among rural dwellers; unresolved structural barriers may exacerbate disparities. In light of these research lacunae, there is a critical need for empirical investigations that foreground rural voices and experiences to inform policymaking and program design.

The present study is of considerable importance, as it aims to deepen understanding of mobile banking's role in fostering inclusive growth in both urban and rural areas of Gandaki Province, Nepal. Persistent banking inaccessibility among rural communities impedes their capacity to save, borrow, remit funds, and participate fully in the economy. By systematically identifying and analysing the barriers encountered by rural populations, such as digital illiteracy, unreliable connectivity, and scepticism toward digital platforms, this research aspires to inform

the efforts of banks and policymakers. The insights derived from this study can help develop strategies for ensuring secure, widespread, and user-friendly access to mobile banking, thereby contributing to greater financial fairness, the empowerment of local enterprises, and the broader socioeconomic advancement of urban and rural regions.

Objective: The main goal of this study is to find out how different things like access to mobile phones, education level, income level, how safe people feel using mobile banking, and how often they use it affect financial inclusion.

1. Examine how access to mobile phones affects financial inclusion.
2. Analyze the relationship between a person's education level and financial inclusion.
3. Investigate the impact of a person's income or social status on financial inclusion.
4. Assess the association between perceived security in using mobile banking and financial inclusion.
5. Explore the effect of mobile banking usage frequency on financial inclusion.

Literature Review

Mobile Banking and Urban Rural Financial Inclusion

Recent research shows that digital financial services have grown quickly in Nepal. However, there are still big differences between urban and rural areas. According to Nepal's 2023 Financial Inclusion Report, 96% of adults in Gandaki Province use formal financial services such as banks or cooperatives (Gallego-Losada et al., 2024; Karki, 2024). This is the highest rate among all provinces. In provinces with less development, only about 87% of adults use these services. The number of people using mobile banking across Nepal increased 19 times from 2015 to 2023, with a growth rate of 45% per year (Thakuri et al., 2023). Still, urban areas have much higher usage than rural areas. For example, about 60% of urban adults have formal bank accounts, while only 50% of rural adults do (Dawadi, 2025).

In Pokhara, the capital of Gandaki, digital banking is very popular. A study by Ranabhat et al. (2022) found that 64% of bank customers in Pokhara use internet banking. These users say that saving time and having access at any time are the main benefits. On the other hand, many rural customers face problems like poor internet and low digital skills. Interviews with bankers in Gandaki show that rural people often find mobile banking apps difficult to use because of low digital literacy (Sharma, 2024). A 2025 survey in Pokhara sample size 392 found that people are more likely to use mobile banking if they find it easy and secure. Overall, research shows that urban people in Gandaki are using digital banking much more than those in rural areas. Many rural people are still underserved and face barriers to using these services.

Impacts on Financial Inclusion (Savings, Credit, Remittances)

Most studies agree that mobile banking helps more people access savings and banking services. For example, Limbu (2024), surveyed 150 people in Nepal and found that more use of electronic banking leads to more people using formal financial services. Alrabei et al., (2022), studied national data from 2016 to 2021 and found that as more people got mobile phones, more people opened bank accounts. This means mobile phones help rural and low-income people save money and use banking services. Other reviews show that mobile wallets allow people in remote villages to send and receive money without going to a bank branch.

There is less research on how mobile banking affects credit and remittances. Some studies use the number of deposit accounts to measure financial inclusion, but do not look directly at loans or remittances. International studies suggest that mobile banking can help people get small loans and send money, especially for migrants, but there is not much research on this in Nepal (Thieme & Wyss, 2005). The Nepal Rastra Bank has said that USSD-based payments can make it easier for people to send money across the country (Bank, 2024). However, there are few studies on how mobile banking helps people get loans or insurance in rural Gandaki. In summary, mobile banking reduces costs and saves time, which encourages saving and wider use of banking services, but more research is needed on its impact on credit and remittances.

Gender Disparities in Mobile Banking Usage

The gap between men and women in using financial services in Nepal has become smaller, but some differences remain. By 2022, about 89% of women and 90% of men used some formal financial services (Acharya, 2025). However, men are still more likely to have bank accounts 56% of men compared to 50% of women (Tripathi & Rajeev, 2023). Research shows that government policies and programs for women have helped close this gap. When it comes to mobile banking, most studies (mainly in cities) find little difference between men and women. For example, Glavee-Geo et al., (2017), surveyed 345 bank customers and found that gender did not have a significant effect on digital banking use. Still, women are a bit less likely to have bank accounts. There is little research on rural women's use of mobile banking, so it is not clear if they face extra barriers. More research is needed in this area.

Government and Policy Interventions

The Nepalese government and central bank have taken many steps to support mobile finance. Every bank must have branches in all 753 local areas, including rural places. This has helped bring banking services to remote regions. The government also pays social benefits, like old-age allowances, through bank accounts, which makes rural families open accounts. The Nepal Rastra Bank has created rules for digital finance, such as a 2016 policy that allowed companies

like eSewa, Khalti, and IME Pay to operate legally (Chand, 2025). In 2022, new rules allowed rural agents to use POS machines for deposits, withdrawals, and even small loans (Tun, 2023). In 2021, a new mobile payment service called Namaste Pay was launched, which works on basic phones and does not need the internet. These policies help people in areas without internet access use digital financial services. Other rules, like QR code payments, have made small payments and loans cheaper and easier. These actions aim to make mobile banking available to more people, especially in rural areas.

Theoretical Review

The Technology Acceptance Model (TAM) and Unified Theory of Acceptance and Use of Technology (UTAUT) Singh & Srivastava, (2018), explain how independent variables like access to mobile technology, education level, socioeconomic status, perceived security, and mobile banking usage frequency influence the dependent variable mobile-banking-enabled financial inclusion. These theories provide a structured way to understand why some people adopt mobile banking more easily than others and how this adoption helps bridge financial gaps.

Technology Acceptance Model (TAM)

TAM focuses on two main factors: perceived usefulness how helpful mobile banking is and perceived ease of use how simple it is to operate. In Gandaki Province, access to mobile technology directly affects ease of use because rural users need smartphones and internet connectivity to even try mobile banking. For example, farmers in Syangja who own smartphones find it easier to check account balances or transfer money than those relying on basic phones. Education level also plays a role: people with higher education understand mobile banking interfaces faster, making the technology feel less intimidating.

Socioeconomic status influences perceived usefulness. Wealthier users in Pokhara, for instance, use mobile banking for loans and investments, while lower-income groups stick to basic transactions like remittances. Perceived security acts as a barrier or motivator: rural users hesitate to adopt mobile banking if they fear scams, but those who trust the system use it more frequently. Finally, mobile banking usage frequency reinforces habit formation. Regular users in Gandaki Province become more comfortable over time, which increases their reliance on digital financial services.

Unified Theory of Acceptance and Use of Technology (UTAUT)

UTAUT adds more layers to TAM by including performance expectancy (how well mobile banking meets needs), effort expectancy (ease of learning), social influence (peer pressure), and facilitating conditions (resources like tech support). In Gandaki, access to mobile

technology is a facilitating condition without reliable networks, even educated users can't benefit from mobile banking. Education level reduces effort expectancy; villagers with basic literacy struggle with app navigation compared to urban users.

Socioeconomic status is tied to performance expectancy. Small business owners in Pokhara adopt mobile banking faster because it helps them manage cash flow, while rural laborers see fewer immediate benefits. Social influence matters in close-knit communities: when neighbors or family members use mobile banking, others feel pressured to try it. Perceived security also affects facilitating conditions banks offering fraud protection see higher adoption rates in rural Syangja. Lastly, usage frequency reflects behavioral intention; users who start with simple tasks (e.g., checking balances) gradually explore advanced features like loans.

Both TAM and UTAUT show that mobile banking adoption in Gandaki Province depends on a mix of technology access, education, income, trust, and regular use. TAM highlights how perceived usefulness and ease of use drive initial adoption, while UTAUT explains how social norms and technical support sustain long-term use. For example, a farmer with a smartphone access and basic education can learn to send payments ease of use, but without community encouragement social influence or reliable networks facilitating conditions, they might stop using the service. Policymakers and banks must address all these factors to ensure mobile banking effectively bridges the urban-rural financial gap.

Empirical Review

Hypothesis 1: If people in Gandaki Province have better access to mobile technology, then their level of financial inclusion through mobile banking will increase.

Access to mobile technology is a key factor in increasing financial inclusion through mobile banking. Studies show that people in rural areas with good mobile network coverage are much more likely to use mobile banking services (Mothobi & Kebotsamang, 2024). For example, when mobile internet and smartphones became more available in rural, the number of people using mobile banking doubled (Agurto et al., 2025). In Gandaki Province, over half of urban users said that reliable internet was the main reason they started using mobile banking, while fewer rural users could say the same (Karki et al., 2024). Research also found that living closer to mobile towers increased the chances of using mobile banking, and poor network quality discouraged regular use. These findings suggest that simply having access to mobile technology can make a big difference in whether people use digital financial services.

Hypothesis 2: There is a positive association between a user's education level and their ability to achieve financial inclusion using mobile banking services.

Education level also plays an important role in mobile banking adoption. People with higher education or better digital literacy are more comfortable using mobile banking apps. In Gandaki Province,Paudel users with secondary education were more than twice as likely to use mobile banking compared to those with only primary education (Kandel & Khanal, 2024). Similar results were found in other countries: financial literacy programs in Jordan led to a big increase in mobile banking use among educated groups, and university students in Dubai adopted mobile banking much faster than others (Shehadeh et al., 2025). On the other hand, rural users with low education often struggled with app navigation, which led to lower transaction frequency and even caused some to stop using mobile banking altogether.

Hypothesis 3: Socioeconomic status and access to mobile technology together have a combined effect on the financial inclusion of rural and urban residents through mobile banking.

Socioeconomic status affects how people use mobile banking and what features they choose. High-income users in places urban areas used mobile banking for loans and investments much more than low-income groups, who mostly used it for basic transactions like sending or receiving money (Mothobi & Kebotsamang, 2024). Small business owners and middle-income entrepreneurs adopted mobile banking faster because it helped them manage their finances and grow their businesses. In contrast, daily wage workers and low-income users had lower engagement, often because they did not see as many benefits or could not afford smartphones.

Hypothesis 4: Higher perceived security of mobile banking leads to a greater likelihood of financial inclusion among users in both urban and rural areas.

Perceived security is another important factor that influences whether people use mobile banking. Many rural users in Nepal and other countries avoided mobile banking because they were afraid of scams or losing their money (Dhakal & Acharya, 2025). When banks offered better fraud protection and introduced features like biometric logins, trust in mobile banking increased, especially in urban areas. Research from South Korea and Ghana also showed that users who trusted the security of mobile banking were much more likely to use it for bigger transactions and to keep using it over time.

Hypothesis 5: There is a relationship between how often people use mobile banking and their level of financial inclusion, but the direction of this relationship is not specified.

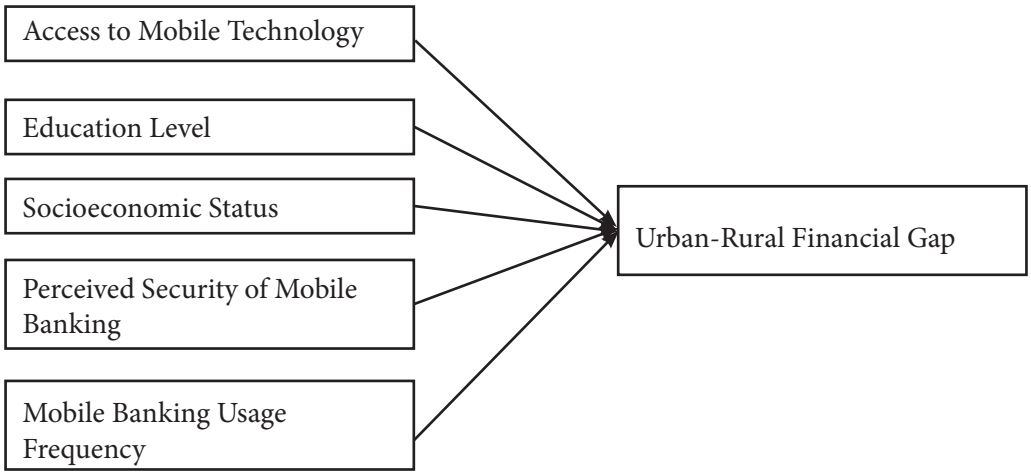
How often people use mobile banking also matters for financial inclusion. Regular users are more likely to try advanced features like loans and insurance, while occasional users stick to basic services (Moustati et all., 2024). Thakuri et al., (2023), studies in Nepal found that frequent users were more comfortable with mobile banking, felt less risk, and even encouraged others in

their community to use it. In Gandaki Province, people who used mobile banking more often had higher financial literacy and were more likely to recommend it to friends and family.

In conclusion, both the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) help explain how these factors access to mobile technology, education level, socioeconomic status, perceived security, and usage frequency work together to increase mobile-banking-enabled financial inclusion. TAM shows that people are more likely to use mobile banking when they find it useful and easy to use, while UTAUT adds that social influence and technical support also matter (Abu-Taieh et all., 2022). The findings from previous studies support these theories and show that improving access, education, trust, and support can help more people in rural and urban areas benefit from mobile banking.

Figure 1

Conceptual Framework



Research Design

Methodology

This study is about the role of mobile banking in bridging the urban-rural financial gap. The research areas are Galyang and Waling Municipalities rural areas in Syangja District and Pokhara Metropolitan City urban area in Kaski District. The target population is adults and young people who are 18 years old and above.

I used a multi-stage sampling approach. First, I selected the study areas. Then, I used random sampling to choose the respondents from both rural and urban areas. The total sample size is about 792, with 395 from rural areas and 397 from urban areas. A pilot survey was conducted with 30 participants 30 urbans, 30 rural not included in the final analysis. These participants

provided feedback on the clarity of questions, relevance of items, comprehensibility, and the estimated time required to complete the survey.

Data was collected using a structured questionnaire. The questionnaire included both open-ended and closed-ended questions. This helped to collect both quantitative and qualitative data. The questions were designed to measure the variables shown in the conceptual framework: access to mobile technology, education level, socioeconomic status, perceived security of mobile banking, and mobile banking usage frequency1.

In rural areas I conducted face-to-face interviews. This was done to help people who might have difficulty reading or using technology. In urban areas (Pokhara), I used both face-to-face interviews and online surveys, depending on what was more suitable for the respondents.

I used Smart PLS 4.0 software to analyze the data. The analysis focused on comparing the results from rural and urban areas. This helped to find out how mobile banking is affecting the financial gap between urban and rural areas.

Collecting data separately in rural and urban areas helps to understand the differences and challenges in each area. This approach makes it possible to identify specific barriers and opportunities for mobile banking in both settings. It also helps to make the findings useful for policy and practice in both rural and urban contexts.

Ethical Considerations

Participation in the study was voluntary. All respondents gave informed consent before taking part. The privacy and confidentiality of all data were maintained throughout the study. No personal information was shared, and all responses were kept secure and used only for research purposes.

Table. 1. *Demographic Analysis*

Variable	Category	Rural (n=395)	Urban (n=397)	Total (n=792)
Gender	Male	218 (55.0%)	198 (50.0%)	416 (52.5%)
	Female	171 (43.3%)	192 (48.3%)	363 (45.8%)
	Other	6 (1.7%)	7 (1.7%)	13 (1.7%)
Age Group	Under 20	53 (13.4%)	40 (10.0%)	93 (11.7%)
	21–30	119 (30.12%)	132 (33.2%)	251 (31.5%)
	31–40	99 (25.0%)	112 (28.2%)	211 (26.5%)
	41–50	72 (18.2%)	66 (16.6%)	138 (17.3%)
	51+	52 (13.2%)	47 (11.8%)	99 (12.5%)
	No formal education	44 (11.1%)	13 (3.2%)	57 (7.1%)
Education Level	Primary	73 (20.0%)	40 (10.0%)	113 (14.1%)

	Secondary	132 (33.4%)	106 (26.7%)	238 (30.0%)
	Bachelor	86 (21.7%)	132 (33.3%)	218 (27.3%)
	Master or above	52 (13.1%)	106 (26.7%)	158 (19.8%)
Occupation	Farmer	145 (36.7%)	27 (6.8%)	172 (21.6%)
	Business	52 (13.1%)	79 (20.0%)	131 (16.4%)
	Employed	80 (20.2%)	159 (40.0%)	239 (30.0%)
	Unemployed	52 (13.1%)	40 (10.0%)	92 (11.5%)
	Student	66 (16.7%)	92 (23.2%)	158 (19.8%)
Monthly Income	Less than NPR 10,000	131 (33.2%)	54 (13.6%)	185 (23.2%)
	NPR 10,000–30,000	171 (43.3%)	133 (33.5%)	304 (38.2%)
	NPR 30,001–50,000	66 (16.7%)	119 (29.9%)	185 (23.3%)
	Above NPR 50,000	27 (6.8%)	91 (22.9%)	118 (14.8%)
Use Mobil Ban	Yes	290 (73.4%)	370 (93.2%)	660 (83.3%)
	No	105 (26.4%)	27 (6.8%)	132 (16.7%)
Own Smartphone	Yes	237 (60.0%)	345 (86.9%)	582 (73.4%)
	No	158 (40.0%)	52 (13.1%)	210 (26.6%)
Use Mobile Banking	Less than 6 months	20 (5.0%)	23 (6.7%)	43 (5.4%)
	6–12 months	60 (15.1%)	51 (13.0%)	111 (14.0%)
Duration of Use	More than 1 year	395 (100.0%)	397 (100%)	792 (100%)

Table 1 study included 792 people from both rural and urban areas. The data shows clear differences between people living in rural and urban places across several key areas. Among the participants, just over half were male 52.5 percent. In rural areas, 55 percent were male, while in urban areas, 50 percent were male. Female participants made up 45.8 percent overall, with 43.3 percent in rural and 48.3 percent in urban areas. A small number 1.7 percent were identified as 'Other' in both groups. Most participants were between 21 and 40 years old. The largest group was the 21–30 age range, making up 31.5 percent of the total. The next biggest group was 31– 40 years 26.5 percent. Fewer people were under 20 or 11.7 percent or over 12.5 percent. There was a difference in education between rural and urban participants. In rural areas, more people had no formal education 11.1 percent compared to urban areas 3.2 percent. Most people had secondary education 30 percent, and many had a bachelor's degree 27.3 percent. More urban participants had a master's degree or higher 26.7 percent compared to rural 13.1 percent.

Farming was the main job in rural areas 36.7 percent, but only 6.8 percent in urban areas. More urban people were employed 40 percent or in business 20 percent compared to rural areas. Students made up about one-fifth of the total. Most rural participants earned less than NPR 30,000

per month. In urban areas, more people had higher incomes. About 23.2 percent of all participants earned less than NPR 10,000, while 14.8 percent earned more than NPR 50,000. Urban areas had more high-income earners. Mobile banking was more popular in urban areas 93.2 percent than in rural areas 73.4 percent. Most urban participants owned a smartphone 86.9 percent, compared to 60 percent in rural areas. Most people had been using mobile banking for more than one year. In summary, urban participants tended to have higher education, better jobs, and higher incomes. They also used mobile banking and smartphones more than rural participants. Rural participants were more likely to be farmers and have lower income and education levels.

Table. 2. *Factor Loading*

Construct	Indicator	Urban	Rural
AMP (Access to Mobile Technology)	AMP1	–	-
	AMP2	0.824	–
	AMP3	0.728	–
	AMP4	0.772	0.659
	AMP5	0.785	0.718
	AMP6	0.808	0.732
	AMP7	0.804	0.701
EDU (Education Level)	EDU1	0.786	0.871
	EDU2	0.783	0.873
	EDU3	0.742	-
	EDU4	0.726	-
	EDU5	0.765	-
	EDU6	0.730	0.790
	EDU7	-	0.806
URFG (Urban Rural Financial Gap)	URFG1	0.744	0.891
	URFG2	–	0.875
	URFG3	–	0.895
	URFG4	0.709	0.894
	URFG5	0.732	0.887
	URFG6	0.743	0.907
MOB (Mobile Banking Usage)	MOB1	0.690	0.900
	MOB2	0.704	0.867
	MOB3	–	0.887
	MOB4	0.742	0.840

	MOB6	0.749	–
	MOB7	0.672	–
PEM (Perceived Security of Mobile)	PEM1	–	0.873
	PEM2	0.774	0.882
	PEM3	0.722	0.884
	PEM4	0.724	0.901
	PEM5	0.767	0.851
	PEM6	0.714	0.845
	PEM7	0.771	0.869
SOC (Socioeconomic Status)	SOC1	0.761	0.751
	SOC2	0.794	0.682
	SOC3	0.807	0.780
	SOC4	0.803	0.794
	SOC5	0.803	0.795
	SOC6	0.766	0.795
	SOC7	0.784	0.812

In the table 2, most indicators of Cronbach's Alpha have high loadings in both urban and rural groups, but sometimes an indicator works better in one group than the other. For example, some questions about mobile banking are more relevant for urban users, while others fit rural users better. This pattern helps researchers understand which questions are clear and useful for different groups, and which areas might need more support or better explanation. Overall, the table helps show that education, access to technology, and social influence are important for using mobile banking, but there are still differences between urban and rural areas that need attention in future policies and programs. Education and social influence work very well in both city and village areas, with almost all questions showing strong numbers above. This means that whether someone lives in a city or village, their education level and what their community thinks are very important factors in mobile banking use. This research helps us understand that mobile banking affects city and village people differently, and banks need to create different strategies for each group to make their services more effective and accessible. Based on the above data analysis, the outer loading is above 0.60 (Fahmi et al., 2022), which demonstrates strong convergent validity for the construct.

Table. 3. *Construct Reliability and Validity*

Construct	Cronbach's α		Composite reliability		AVE	
	Urban	Rural	Urban	Rural	Urban	Rural
AMP	0.878	0.675	0.888	0.804	0.620	0.506
EDU	0.850	0.857	0.856	0.903	0.571	0.699
URFG	0.712	0.948	0.711	0.958	0.536	0.793
MOB	0.760	0.897	0.769	0.928	0.507	0.764
PEM	0.843	0.947	0.861	0.957	0.556	0.761
SOC	0.899	0.886	0.920	0.910	0.622	0.591

The above table 3 shows reliability and validity of the constructs used in this study were assessed using urban and rural area, including Cronbach's Alpha, Composite reliability and Average Variance Extracted (AVE). The accepted loading values require at least 0.60 for factor loading (Ab Hamid et al., 2017), and AVE must exceed 0.50 (Henseler et al., 2015) and Cronbach's alpha more than 0.70 (Hair Jr et al., 2020). Cronbach's Alpha values for all constructs exceeded the acceptable threshold of 0.7, indicating good internal consistency. It compares how reliable and valid the survey questions are for each main topic construct in both urban and rural areas. The results show that all constructs have good reliability and validity in both settings, as most values are above the recommended levels (0.7 for reliability and 0.5 for AVE). In urban areas, all constructs meet the minimum standards, but the reliability scores are generally higher in rural areas, Acess to Mobil Technology (AMP), especially for Education Level (EDU), Urban Rural Financial Gap (URFG), Mobile Banking Usage (MOB), Perceived Security of Mobile (PEM) and Socioeconomic Status(SOC). This means that the survey questions for these topics worked even better in rural areas, possibly because people in rural areas have more similar experiences or opinions about these topics.

Overall, the table shows that the survey tool is strong and reliable for both urban and rural groups, but it works especially well in rural areas for certain topics. This finding supports the use of these constructs in further research and policy-making, as they accurately measure attitudes and experiences with mobile banking in different settings. The higher reliability and validity in rural areas may reflect the more unified challenges and experiences faced by rural populations regarding education, financial inclusion, and mobile banking. These results can help guide banks and policymakers to design better programs that address the specific needs of both urban and rural users, making mobile banking more accessible and effective for everyone.

Table. 4. *Fornall Larker*

Con-struct	AMP (U)	AMP (R)	EDU (U)	EDU (R)	URFG (U)	URFG (R)	MOB (U)	MOB (R)	PEM (U)	PEM (R)	SOC (U)	SOC (R)
AMP	0.726	0.787										
EDU	-0.230	-0.023	0.893	0.756								
URFG	0.336	0.313	-0.629	0.288	0.890	0.732						
MOB	0.300	0.046	-0.567	0.055	0.802	0.258	0.874	0.712				
PEM	0.334	-0.059	-0.578	0.004	0.812	0.211	0.902	-0.003	0.872	0.746		
SOC	0.313	0.059	-0.505	-0.049	0.744	0.274	0.831	-0.027	0.886	-0.016	0.823	0.788

Based on the above tables, 4, Fornell Larker provide insights into the discriminant validity of the constructs, with values below diagonal values generally indicating sufficient discriminant validity (Mohammed et all., 2025). To determine discriminant validity between the constructs in the urban and rural settings. The square root of the Average Variance Extracted (AVE) for each construct, displayed on the diagonal, was higher than the correlations between constructs in both samples, which speaks in favour of discriminant validity. Education Level (EDU = 0.893), Urban Rural Financial Gap (URFG = 0.890), Mobile Banking Use Frequency (MOB = 0.874), Perceived Security of Mobile (PEM = 0.872), and Socioeconomic Influence (SOC = 0.823) demonstrated high internal consistency and a distinct separation with other variables in the case of the rural sample. In comparison, although urban constructs also displayed satisfactory values (e.g., AMP = 0.787; SOC = 0.788), the construct correlations were, in general, weaker than in the rural data. Interestingly, all of the remaining constructs in the rural area showed a negative correlation with Education (e.g., EDU-URFG = -0.629; EDU-MOB = -0.567), which means that, in the rural context, better education levels do not automatically lead to improvements in financial behavior or the adoption of mobile banking. In rural contexts, Mobile Banking Use and Socioeconomic Influence indicated close relationships with Perceived Security Ease and Motivation (e.g., MOB-PEM = 0.902; SOC-PEM = 0.886), as did Perceived Security of Mobil and Motivation with each other (e.g., PE-PEM = 0.930; MO-PEM = 0.911), thus reflecting the interdependence of these factors in shaping the financial behavior of rural users. All in all, the findings imply that the rural respondents exhibit a more pronounced structural relationship among constructs, which may be attributed to a more cohesive view of mobile banking advantages and convenience in less financially developed settings.

Table. 5. *Model Fit*

Fit Index	Urban Area	Rural Area
SRMR	0.059	0.049
d_ULS	1.97	1.424
d_G	0.713	0.34
Chi-square	1662.446	773.014
NFI	0.865	0.856

The model fit results table 5 shows for both urban and rural samples show that the models fit the data well. In both cases, the Standardized Root Mean Square Residual (SRMR) values are below the recommended cutoff of 0.08 specifically, 0.059 for urban and 0.049 for rural indicating a good match between the model and the observed data. The value of SRMR should be smaller than 0.085 or 0.12 (Shi et al., 2018). The d_ULS and d_G values, which measure the difference between the actual and predicted correlation matrices, are lower for the rural model d_ULS = 1.424; d_G = 0.340 compared to the urban model d_ULS = 1.97; d_G = 0.713, suggesting an even closer fit in rural areas. The Chi-square statistic is also smaller in the rural sample 773.014 than in the urban sample (1662.446), which further supports a better fit for the rural data. Both models have Normed Fit Index (NFI) values above 0.80 - 0.865 for urban and 0.856 for rural showing strong comparative fit. Overall, while both models are acceptable, the rural model demonstrates a slightly better fit, as reflected in the SRMR, d_ULS, and d_G values.

Table. 6. *VIF*

Construct	VIF(U)	VIF(R)
AMP -> URFG	1.010	2.407
EDU -> URFG	1.006	2.113
MOB -> URFG	1.006	1.965
PEM -> URFG	1.004	1.853
SOC -> URFG	1.007	1.525

The VIF table 6 shows how much the different factors like access to mobile technology, education level, mobile banking use, empowerment, and socioeconomics are related to each other when predicting urban to rural financial gap in both urban and rural areas. Although standard errors are higher, they indicate that the coefficients of any or all independent variables may be very different from zero (Schielzeth, 2010). A commonly used measure of indicator multicollinearity is the Variance Inflation factor (VIF). The collinearity test of a model is said to be free of 98 multicollinearity if all VIF values produced by a full collinearity test are less than or equal to 3.3 or 5 (Kroll & Song, 2013; Tomaschek et al., 2018). All the VIF values in the table are low (all below 5), which means there is no serious overlap between the factors. This is good because it tells us that each factor is giving its own unique information and not repeating what the others are showing. In simple terms, the results are reliable, and we can trust that the analysis is not affected by the factors being too similar to each other. This makes the study strong and helps us better understand what affects financial inclusion in both cities and villages.

Table. 7. *Coefficient of Determination (R^2)*

U	Original sample (O)
URFG(Urban)	0.367
URFG(Rural)	0.74

Table 7 presents the R-squared value in the rural area is 0.74, which means that 74% of the changes in the urban to rural financial gap can be explained by the factors used in the model for rural people. This is a high value and shows that the model works very well for explaining the financial gap in villages. In simple words, most of the important reasons why rural people are included in financial services are covered by this study. On the other hand, the R-squared value in the urban area is 0.367, which means that only about 37% of the changes in the urban to rural financial gap can be explained by the same factors for city people. This is a lower value and tells us that there are other reasons affecting the financial gap in cities that are not included in the model. So, the study explains the financial gap much better in rural areas than in urban areas, showing that the factors used are more suitable for villages than for cities. According to Purwanto & Sudargini (2021), the acceptable ranges for R^2 values of endogenous latent variables are 0.67 for substantial, 0.33 for moderate and 0.19 for weak measurement.

Table. 8. *Hypothesis Result Rural Area*

Hypothesis	Bita Valu	T-valu	P-values	2.50%	97.50%	Decision
AMP > URFG H1	0.046	1.649	0.099	-0.01	0.101	Unsupported
EDU > URFG H2	-0.313	4.376	0.001	-0.448	-0.169	Supported
SOC > URFG H3	0.503	6.982	0.001	0.367	0.649	Supported
PEM > URFG H4	0.401	4.301	0.001	0.208	0.574	Supported
MOB > URFG H5	0.283	4.314	0.001	0.157	0.416	Supported

The hypothesis testing results in Table 8 show the direct effects of five key factors on the urban-rural financial gap. Out of the five hypotheses tested, four were found to be statistically significant, while one was not supported by the data.

Hypothesis H1, which examined whether access to mobile technology (AMP) reduces the urban-rural financial gap, was not supported ($\beta = 0.046$, $t = 1.645$, $p = 0.099$). This means that simply having awareness or positive perceptions about mobile technology does not significantly help bridge the gap between urban and rural financial gap. The p-value of 0.099 is above the

standard significance level of 0.05, indicating that this relationship is not strong enough to be considered reliable.

Hypothesis H2 revealed an unexpected finding: education level (EDU) actually increases the urban-rural financial gap ($\beta = -0.313$, $t = 4.376$, $p < 0.001$). This negative relationship suggests that higher education levels may actually widen the gap between urban and rural financial inclusion rather than narrow it. This could be because educated people in rural areas might have higher expectations for financial services or may migrate to urban areas, leaving less educated populations behind.

Hypothesis H3 showed that socioeconomic status (SOC) has the strongest positive effect on reducing the urban-rural financial gap ($\beta = 0.508$, $t = 6.982$, $p < 0.001$). This means that better economic conditions and social standing significantly help bridge the gap between urban and rural financial inclusion. People with higher socioeconomic status are more likely to access and use financial services regardless of their location.

Hypothesis H4 demonstrated that perceived security of mobile banking (PEM) positively influences the reduction of the urban-rural financial gap ($\beta = 0.401$, $t = 4.301$, $p < 0.001$). When people feel safe and secure using mobile banking services, it helps reduce the differences in financial inclusion between urban and rural areas. Trust and confidence in mobile banking security are crucial for its adoption.

Finally, Hypothesis H5 confirmed that mobile banking usage frequency (MOB) positively affects the reduction of the urban-rural financial gap ($\beta = 0.283$, $t = 4.314$, $p < 0.001$). The more frequently people use mobile banking services, the more it helps bridge the gap between urban and rural financial inclusion. Regular usage leads to better financial access and inclusion for users in both areas.

Based on the hypothesis testing tables provided, this analysis examines how different factors influence financial inclusion through mobile banking in rural and urban areas of Gandaki Province, Nepal. The results show distinct patterns between the two settings, with important implications for policy and practice.

Table. 9. *Urban Area Hypothesis Results*

Hypothesis	Bita- Valu	T-value	P-values	2.50%	97.50%	Decision
AMP > URFG H1	0.306	7.375	0.001	0.222	0.386	supported
EDU > URFG H2	0.295	7.377	0.001	0.209	0.368	Supported
SOC > URFG H3	0.28	7.876	0.001	0.209	0.348	Supported
PEM > URFG H4	0.233	6.121	0.001	0.154	0.304	Supported
MOB > URFG H5	0.236	6.004	0.001	0.153	0.309	Supported

Table 9 presents the hypothesis testing results for the urban area, demonstrating that all five research hypotheses (H1 to H5) were strongly supported, indicating significant positive relationships between the independent variables and the reduction of the urban-rural financial gap. Each hypothesis achieved statistical significance with p-values of 0.001, indicating very strong evidence for these relationships.

Access to Mobile Technology (H1) showed the strongest effect on reducing the urban-rural financial gap with a beta coefficient of 0.306 and a t-value of 7.375. This means that better access to mobile technology in urban areas significantly helps bridge the gap between urban and rural financial inclusion. The confidence interval (0.222 to 0.386) confirms this positive relationship is reliable and meaningful1.

Education Level (H2) also demonstrated a strong positive impact with a beta value of 0.295 and t-value of 7.377. This finding indicates that higher education levels in urban areas contribute significantly to reducing financial disparities between urban and rural populations. Urban residents with better education are more likely to use financial services effectively, which helps narrow the gap.

Socioeconomic Status (H3) proved to be another important factor with a beta coefficient of 0.28 and t-value of 7.876. This suggests that improved socioeconomic conditions in urban areas play a crucial role in bridging the financial divide. People with better economic status are more capable of accessing and utilizing various financial services.

Perceived Security of Mobile Banking (H4) showed a positive effect with a beta value of 0.233 and t-value of 6.121. When urban residents feel secure about using mobile banking services, it contributes to reducing the urban-rural financial gap. Trust and confidence in digital financial services are essential for their adoption and effective use.

Mobile Banking Use Frequency (H5) also demonstrated a significant positive relationship with a beta coefficient of 0.236 and t-value of 6.004. Regular use of mobile banking services by urban residents helps reduce the financial gap between urban and rural areas. The more frequently people use these services, the more they contribute to overall financial inclusion.

All hypotheses showed narrow confidence intervals that did not include zero, confirming the reliability of these positive relationships. The strong t-values (all above 6.0) indicate that these effects are not due to chance and represent genuine relationships between the variables. These findings support the theoretical foundations based on the Technology Acceptance Model and Unified Theory of Acceptance and Use of Technology, demonstrating that urban factors significantly influence the reduction of urban-rural financial disparities through mobile banking adoption and usage.

Figure. 2. *Path Diagram Rural*

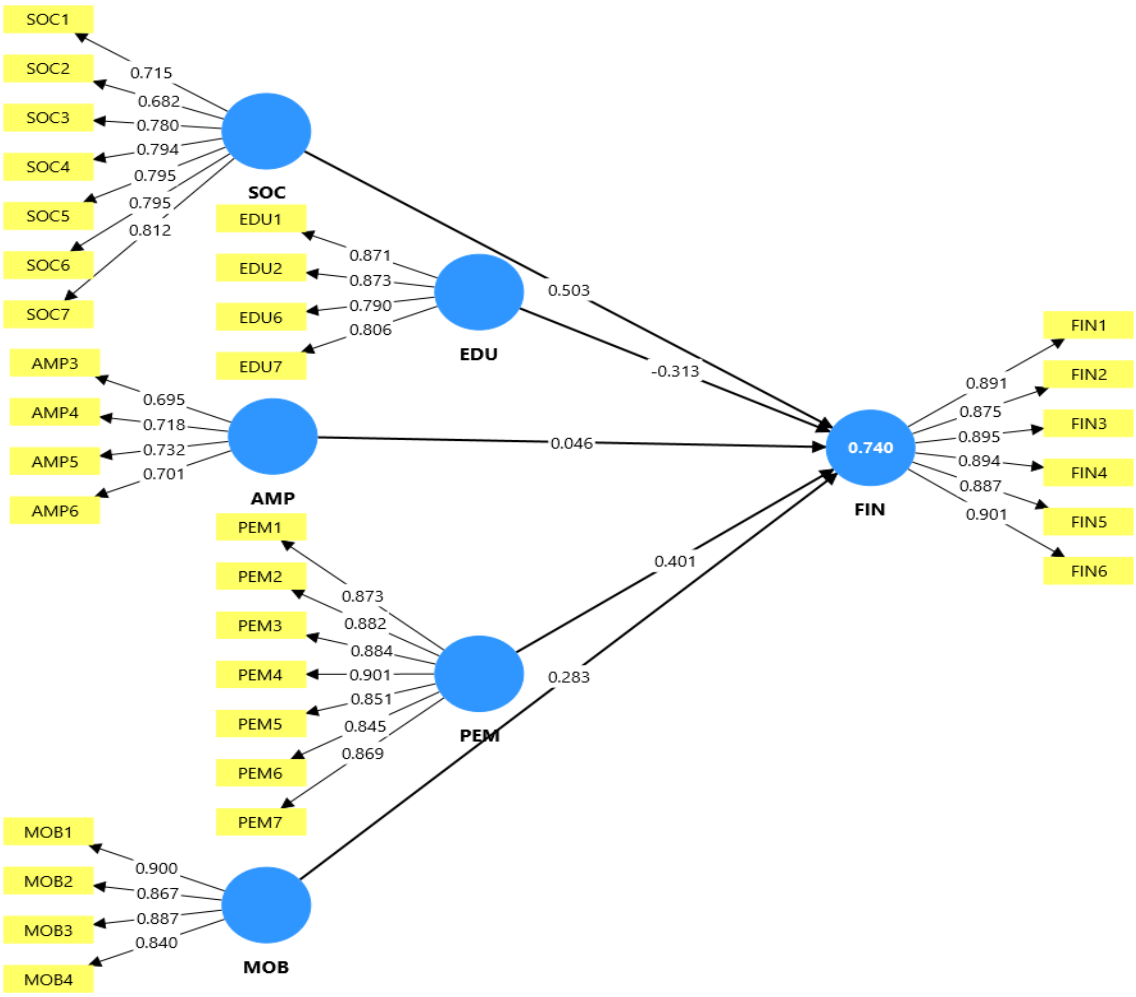


Figure. 3. *Path Diagram Urban*

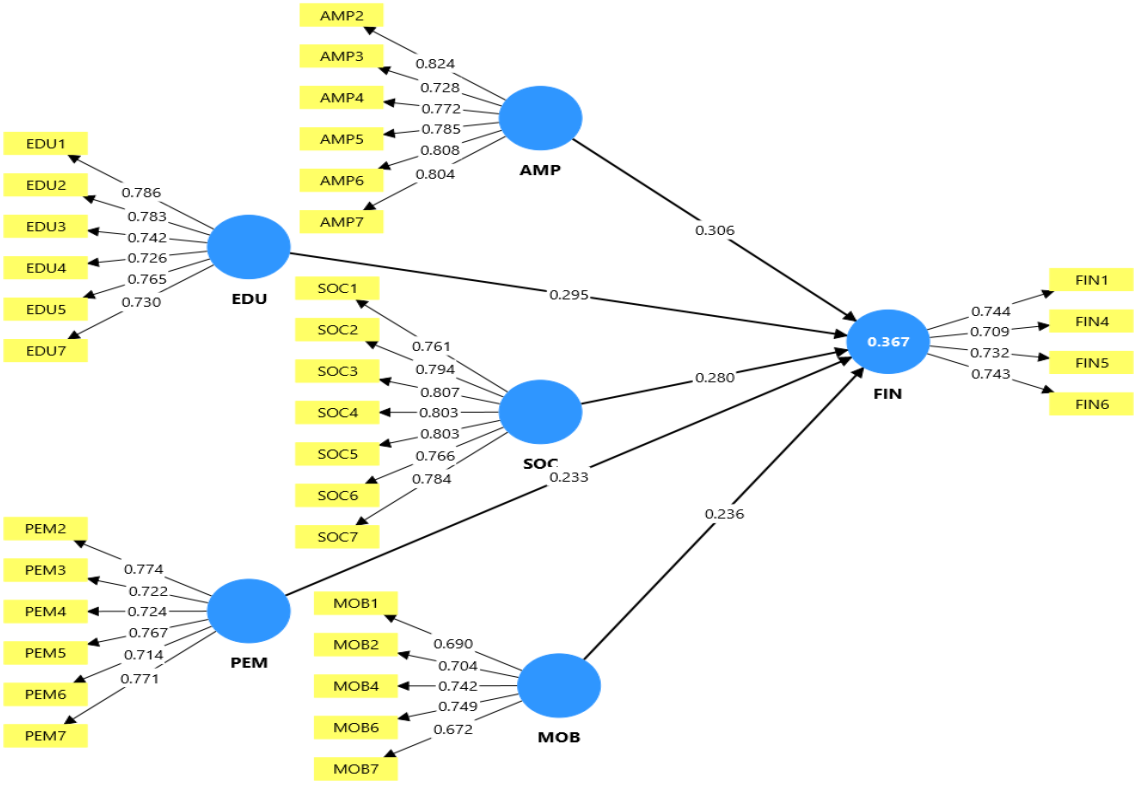


Table. 10. *Comparison Result Both*

Hypothesis	Relationship	Urban Result	Rural Result	Key Different
H1	AMP → URFG	Strong positive effect (β = 0.306)	No significant effect.	Access to mobile technology is a key driver in cities but is not enough to reduce the gap in rural areas alone.
H2	EDU → URFG	Strong positive effect (β = 0.295)	Significant negative effect (β = -0.313).	Education helps reduce the gap in urban areas but appears to widen it in rural areas.
H3	SOC → URFG	Strong positive effect (β = 0.280)	Strongest positive effect (β = 0.508).	Socioeconomic status is a powerful factor in both areas but has an even stronger impact in the rural context.
H4	PEM → URFG	Positive effect (β = 0.233)	Strong positive effect (β = 0.401).	Perceived security is important everywhere but is a stronger factor for bridging the gap in rural areas.
H5	MOB → URFG	Positive effect (β = 0.236)	Positive effect (β = 0.283).	Frequent use of mobile banking helps reduce the gap in both areas, with a slightly stronger effect in rural settings.

Table 10 represents the most striking differences are seen in the roles of access to mobile technology (H1) and education level (H2). In urban areas, both factors significantly help reduce the financial gap. This is logical, as urban residents generally have better infrastructure and educational opportunities, allowing them to use mobile banking more effectively. However, in rural areas, the results are opposite. The lack of significance for H1 suggests that simply having access or awareness is not sufficient to overcome other barriers in rural settings, such as poor network quality or lack of technical support.

The negative impact of education (H2) in rural areas is a critical finding. This may indicate that higher education in a rural context, without corresponding local opportunities or financial services, could lead to frustration or migration to urban centers, thereby widening the gap for the remaining population. This aligns with the "knowledge gap hypothesis," which suggests that disparities can grow if one group cannot act on new information as effectively as another.

In contrast, socioeconomic status (H3), perceived security (H4), and mobile banking use frequency (H5) were found to be significant positive drivers in both urban and rural contexts. Notably, socioeconomic status and perceived security had much stronger effects in rural areas. This highlights that fundamental factors like economic stability and trust in the system are especially crucial for encouraging financial inclusion in rural communities. While urban users may take security for granted, it is a key hurdle to overcome for rural adoption.

In conclusion, the comparison shows that the drivers for reducing the urban-rural financial gap are not universal. Urban strategies should focus on leveraging existing advantages in technology and education. Rural strategies, however, must prioritize building a foundation of trust and addressing fundamental socioeconomic barriers before the benefits of technology and education can be fully realized.

Table. 11. *Effect Size F^2*

Construct	Bita Valu (U)	Bita Valu (R)
AMP > URFG	0.147	0.007
EDU > URFG	0.137	0.048
MOB > URFG	0.088	0.054
PEM > URFG	0.085	0.074
SOC > URFG	0.123	0.186

The f-square table shows the effect size of each factor on the Urban Rural Financial Gap (URFG) in both urban and rural areas. F-square values tell us how much each factor contributes to explaining the changes in the dependent variable. Based on established guidelines, f-square values of 0.02 represent small effects, 0.15 represent medium effects, and 0.35 represent large effects (Ramayah et all., 2018).

In urban areas, Access to Mobile Technology (AMP) shows the strongest effect with an f-square value of 0.147, which is close to medium effect size. This means that mobile technology access makes a meaningful contribution to reducing the urban-rural financial gap in cities. Education Level (EDU) follows with 0.137, also approaching medium effect size, indicating that higher education significantly helps bridge the financial gap.

The other factors show smaller but still meaningful effects: Socioeconomic Status (SOC) at 0.123, Mobile Banking Use Frequency (MOB) at 0.088, and Perceived Security (PEM) at 0.085. All these values fall in the small effect range but are above the minimum threshold of 0.02, showing they all contribute to reducing the financial gap in urban areas.

The rural area shows a completely different pattern. Socioeconomic Status (SOC) has the strongest effect with 0.186, which qualifies as a medium effect size. This suggests that economic status is the most important factor for bridging the urban-rural financial gap in rural settings.

Interestingly, all other factors show much weaker effects in rural areas compared to urban areas. Perceived Security (PEM) shows 0.074, Mobile Banking Use Frequency (MOB) shows 0.054, and Education Level (EDU) shows 0.048 - all representing small effects. Most notably, Access to Mobile Technology (AMP) has a very weak effect of only 0.007, which is practically negligible.

Table. 12. *Quadratic Effects*

	P values (R)	P values (U)	Effects
QE (AMP) > URFG	0.065	0.081	Insignificant
QE (EDU) > URFG	0.703	0.769	Insignificant
QE (MOB) > URFG	0.534	0.345	Insignificant
QE (PEM) > URFG	0.808	0.537	Insignificant
QE (SOC) > URFG	0.205	0.691	Insignificant

Table 12 analysis uses Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine possible quadratic (curved) effects between key constructs, following the methods outlined by Hair et al. (2017) and Sarstedt et al. (2020). The table reports on whether quadratic relationships exist between AMP, EDU, MOB, PEM, and SOC with URFG. According to the results, all quadratic effects are statistically insignificant, as their p-values exceed the conventional thresholds of 0.05 or 0.10 (Chin, 1998; Roodman, 2009; Henseler et al., 2009; Amrhein et al., 2017). This means that nonlinear (curved) relationships between these constructs and URFG do not substantially contribute to the model. The findings suggest that linear relationships are more appropriate for explaining the connections between these variables. Consistent with PLS-SEM principles, which emphasize prediction and variance explanation over traditional model fit (Ali et al., 2018), the results show that including quadratic terms does not improve the model's explanatory power.

Major Finding

Unexpected Results and Their Implications

One of the most surprising findings was that Access to Mobile Perception (AMP) had no significant effect on reducing the urban-rural financial gap in rural areas ($\beta = 0.046$, $p = 0.099$). This contradicts common assumptions that simply increasing awareness or access to mobile technology will automatically improve financial inclusion. The insignificant result suggests that rural areas face deeper structural barriers that mere awareness cannot overcome.

This finding aligns with research showing that rural populations need more than just technology access - they need supportive infrastructure, reliable networks, and appropriate training to effectively use mobile banking services. The lack of significance may reflect poor network quality, limited technical support, or inadequate digital literacy programs in rural Gandaki Province.

Negative Impact of Education in Rural Areas

Perhaps the most unexpected finding was the negative relationship between Education Level (EDU) and financial inclusion in rural areas ($\beta = -0.313$, $p < 0.001$). This counterintuitive result suggests that higher education levels in rural contexts may actually widen the urban-rural financial gap rather than narrow it.

Several explanations can account for this phenomenon. First, educated individuals in rural areas may have higher expectations for financial services that local mobile banking offerings cannot meet, leading to frustration and lower adoption. Second, the "brain drain" effect may be at play, where educated rural residents migrate to urban areas for better opportunities, leaving behind less educated populations and thereby widening the gap.

Third, educated rural residents may be more aware of security risks and limitations of mobile banking systems, making them more cautious about adoption compared to their urban counterparts who have better infrastructure and support systems. This finding supports the "knowledge gap hypothesis," which suggests that information disparities can actually increase inequalities when one group cannot act on new information as effectively as another.

Effect Size Analysis

The f-square values reveal important differences in factor importance between urban and rural areas. In urban areas, Access to Mobile Technology shows the strongest effect ($f^2 = 0.147$), approaching medium effect size, followed by Education Level ($f^2 = 0.137$). This pattern reflects urban areas' advantage in technology infrastructure and educational resources (Abbas et al., 2018; Wareing et all., 2018)

Rural areas show a completely different pattern, with Socioeconomic Status having the strongest effect ($f^2 = 0.186$), qualifying as medium effect size. All other factors show much weaker effects in rural areas, with Access to Mobile Technology having practically negligible impact ($f^2 =$

0.007). This stark difference highlights the fundamental role of economic stability in rural mobile banking adoption.

The findings align with broader research on financial inclusion in South Asia, which shows that mobile banking adoption varies significantly between urban and rural contexts (Çallı, 2023; Wong et al., 2023). Studies from Nepal and other developing countries have consistently found that socioeconomic factors are more important than technological factors in rural areas (Çallı, 2023; Omala, 2023; Paneru, 2023).

Research on mobile banking adoption in developing countries supports the finding that perceived security is crucial for rural adoption (Anegue, 2025; Lorain et al., 2025; Tripathi & Rajeev, 2023). Studies from India, Bangladesh, and other South Asian countries have shown similar patterns where trust and security concerns are primary barriers to rural mobile banking adoption (Apaua & Lallie, 2022; Apaua et al., 2022; Pokhrel, 2022).

Byanjankar, et al., (2025) & Jain et al., (2024) found that the negative impact of education in rural areas has been observed in other contexts and aligns with literature on rural development challenges. Studies from various developing countries have found that education without corresponding local opportunities can lead to migration and increased disparities (Abbas et al., 2018; Khan et al., 2017). Raju & Reddy, (2022) and Senyo et al., (2021) this phenomenon has been documented in rural development literature as the "educated migration" effect.

Banskota et al., (2025), Cheah et al., (2013) and Pant, B. (2016) unlock the insignificant impact of mobile access perception in rural areas is consistent with research showing that infrastructure challenges go beyond simple awareness. Studies from rural Nepal and similar contexts have demonstrated that reliable network coverage, electricity, and technical support are prerequisite conditions for effective mobile banking adoption (Nepal Economic Forum, 2023; Apaua & Lallie, 2022; Khan et all., 2017).

Discussion and Conclusion

This study examined five key variables influencing the urban-rural financial gap through mobile banking adoption in Gandaki Province, Nepal. The findings reveal important differences between urban and rural contexts that have significant implications for financial inclusion policies and mobile banking strategies. The results provide insights into how different factors work in various settings and challenge some common assumptions about technology adoption in developing countries.

Urban Area Results

In urban areas, all five hypotheses were strongly supported, showing that mobile banking can effectively bridge financial gaps when the right conditions exist. Access to Mobile Technology (AMP) emerged as the strongest predictor with a beta coefficient of 0.306, indicating

that better mobile infrastructure and awareness significantly help reduce urban-rural financial disparities. Education Level (EDU) also showed strong positive effects (β = 0.295), suggesting that educated urban residents are more likely to use mobile banking services effectively, which helps narrow the gap between urban and rural financial inclusion.

Socioeconomic Status (SOC) proved important with a beta value of 0.28, confirming that wealthier urban residents contribute significantly to bridging financial divides through their adoption and usage of mobile banking services. Both Perceived Security (PEM) and Mobile Banking Use Frequency (MOB) showed positive relationships, with beta coefficients of 0.233 and 0.236 respectively, indicating that trust in mobile banking security and regular usage patterns help reduce financial disparities.

Rural Area Results

The rural area results present a more complex picture with both expected and surprising findings. Only four out of five hypotheses were supported, with one showing an unexpected negative relationship. Socioeconomic Status (SOC) emerged as the strongest factor (β = 0.508), demonstrating that economic conditions are even more crucial in rural settings than in urban areas for bridging financial gaps.

Perceived Security of Mobile Banking (PEM) showed a strong positive effect (β = 0.401), indicating that trust and confidence in mobile banking systems are particularly important for rural adoption. Mobile Banking Use Frequency (MOB) also demonstrated significant positive impact (β = 0.283), suggesting that regular usage helps bridge financial gaps in rural areas.

Theoretical Framework Applications

The results demonstrate different patterns of technology acceptance between urban and rural areas, which can be explained through both Technology Acceptance Model (TAM) and Unified Theory of Acceptance and Use of Technology (UTAUT) frameworks.

In urban areas, TAM's core concepts of perceived usefulness and perceived ease of use are strongly supported (Hutomo, 2023; Sarfaraz, 2017) Urban residents find mobile banking both useful and easy to use due to better infrastructure, education, and support systems (Wareing et la., 2018). The UTAUT model's emphasis on performance expectancy and facilitating conditions also explains why access to mobile technology and education are significant factors in urban settings (Nepal, 2023; Ozili, 2020)

For rural areas, the UTAUT model's focus on social influence and facilitating conditions becomes more relevant (Ozili, 2020; Williams et al., 2023) The strong impact of socioeconomic status and perceived security suggests that rural adoption depends more on fundamental enabling conditions and community trust than on individual awareness or education (Apaua & Lallie,

2022; Senyo et al., 2021). This aligns with UTAUT's emphasis on the importance of social and infrastructural support for technology adoption (Ozili, 2020; Wyman, 2017)

Limitations and Methodological Considerations

This study is limited to Gandaki Province, Nepal, and the findings may not be generalizable to other regions or countries. The specific cultural, economic, and infrastructural context of this province may influence the relationships observed between variables. Future research should examine these relationships in different geographic and cultural contexts to establish broader validity.

The cross-sectional nature of this study limits our ability to establish causal relationships between variables. While the statistical relationships are clear, we cannot definitively conclude that changes in these variables will cause changes in financial inclusion outcomes. Longitudinal studies would be needed to establish causality and understand how these relationships evolve over time.

The study's reliance on mobile banking users may introduce selection bias, as non-users are not represented in the analysis. This limitation is particularly important for understanding barriers to adoption and may affect the generalizability of findings to the broader population. Future research should include non-users to provide a more comprehensive understanding of adoption barriers.

The constructs used in this study were developed primarily in Western contexts and may not fully capture the nuances of mobile banking adoption in rural Nepal. Cultural factors such as community relationships, traditional financial practices, and local trust networks may play important roles that are not adequately measured by standard technology acceptance models.

Policy and Practical Implications

The findings suggest that financial inclusion strategies should be tailored differently for urban and rural contexts. Urban strategies should continue to leverage advantages in technology infrastructure and education, focusing on expanding access and improving digital literacy programs.

Rural strategies require a more fundamental approach that prioritizes building economic stability and trust before focusing on technology adoption. This means addressing basic infrastructure needs, providing economic development opportunities, and building community-based trust networks for mobile banking services.

The negative impact of education in rural areas suggests that simply providing general education may not be sufficient for improving mobile banking adoption. Instead, targeted financial literacy and mobile banking training programs that address specific rural contexts and concerns

may be more effective. These programs should focus on practical skills and address security concerns that educated rural residents may have.

The weak impact of mobile access perception in rural areas highlights the need for comprehensive infrastructure development rather than just awareness campaigns. This includes improving network coverage, ensuring reliable electricity supply, and establishing local technical support systems. Without these foundational elements, awareness and education efforts are unlikely to be effective.

Conclusions and Future Research Directions

This study provides important insights into the complex relationships between various factors and mobile banking adoption in different contexts. The findings challenge simple assumptions about technology adoption and highlight the need for context-specific approaches to financial inclusion.

The unexpected negative impact of education in rural areas and the insignificant effect of mobile access perception point to the importance of addressing fundamental structural barriers before expecting technology-based solutions to be effective. This suggests that financial inclusion efforts should take a more holistic approach that addresses economic, social, and infrastructural foundations alongside technological interventions.

Future research should examine these relationships across different periods and geographic contexts to build a more comprehensive understanding of mobile banking adoption patterns. Longitudinal studies would be particularly valuable for understanding how these relationships evolve as infrastructure and economic conditions change.

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Teacher's Motivation in Community Campus of Rupandehi Districts

Sulochana Aryal, Lecturer, MDC

Abstract : *This research examines the various factors that affect teacher motivation within community campuses located in the Rupandehi district of Nepal. It places particular focus on elements such as campus facilities, salary and benefits, opportunities for professional development, support from the local community, and the overall work environment. The study aimed to understand how each of these factors shapes teachers' motivation and to what extent they influence teaching effectiveness. A total of 384 teachers from different community campuses participated in the survey, which was conducted using purposive sampling. The responses were analyzed using descriptive statistics and correlation methods. Results showed that professional development opportunities and strong community involvement had the most significant positive effects on teacher motivation. Teachers pointed to chances for career growth and active participation from parents and community members as the main drivers behind their motivation to perform well. Although infrastructure also played a role, its impact was slightly less strong. Financial incentives such as salary and benefits were found to have a moderate influence, suggesting that money alone may not be enough to sustain long-term motivation. The work environment, including relationships with colleagues and administrators, contributed positively but had the least overall effect. The findings suggest that a balanced approach is necessary to improve teacher motivation – particularly by strengthening professional development programs and encouraging deeper community engagement. These insights are useful for policymakers and educational leaders aiming to support teacher performance and improve educational outcomes across Nepal.*

Keywords: *Teacher motivation, community campus, professional growth, community support, salary, infrastructure, working environment, Rupandehi district, Nepal.*

Background of the study

In Nepal, community campuses are instrumental in higher education, enrolling nearly 80% of the nation's college-level students. Despite their critical role, these institutions grapple with persistent challenges such as inadequate infrastructure, insufficient teaching resources, and

limited avenues for professional development, all of which contribute to low levels of teacher motivation (Ministry of Education, 2023). Although numerous factors affect educational quality, the issue of teacher motivation often receives insufficient attention, even though it is essential for effective teaching and student achievement (UNESCO, 2023).

According to the Education Sector Plan (2022–2030), less than 35% of faculty members at public campuses regularly participate in professional development programs, and only 28% are involved in in-service training. This limited engagement restricts their skill enhancement opportunities and adversely affects their job satisfaction. Furthermore, many faculty members in community campuses are employed without formal job security, competitive salaries, or essential benefits such as sick leave or retirement pensions. These employment conditions foster high levels of occupational stress and dissatisfaction, prompting many educators to consider leaving the profession (Sharma & Bhandari, 2020; National Campaign for Education Nepal, 2022).

The situation is further exacerbated by political interference in faculty recruitment and management processes. This has created a work environment that many perceive as inequitable and discouraging, especially for dedicated educators who lack political affiliations (Aryal & Sharma, 2017). A study conducted by Acharya and Maharjan (2017) revealed that 42% of teachers in community campuses contemplated leaving their jobs within five years due to dissatisfaction, highlighting a significant concern for teacher retention.

The lack of motivation among teachers has a ripple effect on the entire educational system. It undermines student learning outcomes, diminishes classroom engagement, and weakens the overall academic performance of institutions (Tschannen-Moran & Woolfolk, 2007). In light of these challenges, this study specifically examines the issue of teacher motivation within Nepal's community campuses. It explores how various factors - including infrastructure quality, compensation and benefits, opportunities for professional growth, community involvement, and the broader work environment -influence teachers' morale and long-term commitment to the profession.

Literature Review

Theoretical Review

Herzberg's Two-Factor Theory, originally developed in the 1960s, remains a foundational model for analyzing job satisfaction and employee motivation, particularly in education systems within developing countries (Herzberg, 1966). According to this theory, two categories of factors influence workplace motivation: motivators and hygiene factors. Motivators are intrinsic to the job and include elements such as achievement, recognition, the nature of the work itself, responsibility, and opportunities for personal growth. These factors are considered essential for promoting job satisfaction and encouraging individuals to perform at higher levels. In contrast, hygiene factors are extrinsic, such as salary, working conditions, institutional policies, and job security. While hygiene factors do not necessarily motivate employees when present, their absence can lead to

significant dissatisfaction (Herzberg, 1966; Robbins & Judge, 2019).

This theory has been widely applied in educational research to explain the drivers of teacher satisfaction and retention, especially in low-resource settings like Nepal (Tamang, 2023; Khanal, 2020). In the context of community campuses, where financial constraints, lack of institutional autonomy, and limited professional opportunities are common, Herzberg's model offers a practical lens to differentiate between conditions that merely reduce dissatisfaction and those that actively contribute to improved morale and motivation (Singh & Manandhar, 2021). Thus, Herzberg's framework is particularly relevant for exploring the distinct contributions of salary, infrastructure, training, and institutional climate on teachers' intrinsic motivation and long-term commitment to teaching roles.

Empirical Review

- **Salary and Benefits**

Compensation remains one of the most cited factors affecting teacher motivation globally. In the Nepalese context, Tamang (2023) found that salary dissatisfaction is a key demotivating factor among faculty members in community campuses, particularly those employed on a part-time or contract basis. Teachers without access to benefits such as paid leave or retirement funds often report low morale and consider exiting the profession. This aligns with broader findings from Judge et al. (2010), who emphasize that while salary alone is not a sufficient motivator, inadequate compensation can significantly contribute to dissatisfaction and stress. Similarly, Pokhrel and Awale (2020) highlight that perceived salary injustice and lack of performance-based incentives contribute to teachers' disengagement in public institutions across Nepal.

Moreover, research in South Asia indicates that fair compensation, including non-monetary benefits, influences not only recruitment and retention but also impacts classroom performance (Chudgar & Luschei, 2012). Thus, in alignment with Herzberg's theory, salary and job security must be treated as baseline conditions that prevent dissatisfaction, enabling intrinsic motivators to take effect.

- **Campus Infrastructure**

Physical infrastructure and access to essential facilities play a crucial role in shaping teachers' work experiences and student outcomes. According to UNESCO (2023), inadequate campusinfrastructure such as poor classroom conditions, lack of sanitation, and limited teaching resources undermines teacher morale and the ability to deliver quality education. Acharya and Maharjan (2017) also note that many community campuses in Nepal lack proper buildings, libraries, and ICT resources, making it difficult for faculty to implement modern pedagogical methods. Such conditions act as significant hygiene factors; while improvements may not dramatically increase motivation, substandard environments certainly diminish job satisfaction and hinder teacher performance (Baral, 2021).

International research supports these findings. For example, Earthman (2004) found

a strong correlation between campusinfrastructure and teacher retention rates, with poorly maintained facilities leading to higher turnover. In Nepal, where many community campuses struggle with insufficient funding, the quality of infrastructure remains a critical, yet often neglected, component of teacher motivation.

- **Professional Development**

Opportunities for professional development are directly linked to intrinsic motivation, career growth, and job satisfaction. Loyalka et al. (2019) assert that continuous training improves teacher efficacy and promotes engagement in the learning process. However, the situation in Nepalese community campuses is disheartening. Sharma and Bhandari (2020) found that less than one-third of teachers have access to regular in-service training, and even fewer benefit from career advancement programs. This stagnation contributes to a sense of professional isolation and undermines long-term career aspirations.

Research from similar contexts supports this observation. In India and Bangladesh, studies show that teachers who attend regular workshops and skill enhancement programs demonstrate improved instructional quality and greater job commitment (Majumdar, 2011; Khan & Ahmed, 2019). Professional development thus functions as a powerful motivator, reinforcing Herzberg's view that opportunities for growth and achievement are key drivers of satisfaction.

- **Community Support**

Community engagement is another dimension influencing teacher morale, especially in community campuses that are partially governed and financed by local stakeholders. Basnet and Rai (2019) argue that a strong school-community relationship increases teacher accountability and social recognition, which in turn enhances motivation. Adhikari and Shrestha (2019) further emphasize that schools with active parent committees and community involvement often witness better teacher performance and reduced absenteeism. In such settings, recognition from the local community acts as an intrinsic motivator, fostering pride and a sense of purpose.

Research by Sahlberg (2011) indicates that collaborative governance and community partnerships contribute to improved campusclimate and faculty morale in Finland – offering a model adaptable to Nepal's decentralized education system. When communities invest in teachers, both symbolically and materially, it affirms their value and strengthens their connection to the institution.

- **Work Environment**

Finally, the broader work environment – including interpersonal relationships, administrative support, and organizational culture – has a significant influence on teacher motivation. Ghimire (2022) found that many teachers in Nepalese community campuses experience hierarchical management, lack of autonomy, and limited collegial support. Such conditions contribute to workplace stress and diminish professional satisfaction. The OECD's Teaching and Learning International Survey (TALIS, 2021) confirms that a positive and collaborative work climate is essential for teacher well-being and effectiveness.

Moreover, studies by Skaalvik and Skaalvik (2017) reveal that emotional exhaustion and burnout are directly tied to workplace dynamics rather than teaching itself. In Nepal's context, political interference in faculty appointments and lack of transparency in institutional management exacerbate feelings of injustice and demotivation (Sharma & Bhandari, 2020; Aryal & Sharma, 2017). Promoting a supportive, inclusive, and merit-based institutional culture is thus critical for sustaining motivation and performance in community campuses.

Herzberg's Two-Factor Theory offers a valuable framework for understanding the multiple dimensions that shape teacher motivation in Nepal's community campuses. While hygiene factors such as salary, infrastructure, and job security are necessary to prevent dissatisfaction, intrinsic motivators like professional development, recognition, and community support – are essential for fostering sustained engagement and commitment. Addressing these areas through strategic policy reforms and community collaboration is essential to revitalizing the quality and equity of higher education in Nepal.

Research gaps

Despite the significant role teachers play in the functioning and quality of Nepal's community campuses, empirical research on their motivation remains limited and fragmented. While Herzberg's Two-Factor Theory has been widely used in international studies to assess workplace satisfaction, only a few studies in Nepal have directly applied this framework to examine the motivation of faculty working in community campuses (Tamang, 2023; Khanal, 2020). There is a clear gap in research that empirically links critical factors such as compensation, professional development, infrastructure, and community engagement with teacher motivation in the context of Nepal's decentralized education system. For instance, rural community campuses continue to face critical infrastructural deficits, with more than 70% lacking basic educational facilities including libraries, ICT access, and standard classrooms (Center for Education and Human Resource Development [CEHRD], 2023). These challenges are often overlooked in national studies, which tend to focus on urban or centrally located campuses. Moreover, approximately 40% of the teaching workforce in community campuses consists of contract-based teachers who frequently face unstable employment conditions, inadequate benefits, and minimal professional support (Ministry of Education, Science and Technology [MoEST], 2022). However, their experiences are rarely represented in formal academic research or policy assessments. Another critical oversight in the existing literature is the limited exploration of leadership and community involvement in shaping teacher morale and retention. Leadership practices – especially in decentralized institutions like community campuses – play a key role in fostering positive work environments, yet few studies systematically examine this relationship in Nepal's context (Ghimire, 2022). Similarly, while community participation has been widely endorsed in national education policies, its influence on faculty motivation, recognition, and accountability remains under-investigated. Many of the

studies available on these issues are either outdated or rely heavily on qualitative methods, limiting their applicability for evidence-based policymaking (Singh & Manandhar, 2021). The absence of robust, quantitative data on teacher motivation significantly hinders the development of targeted interventions to improve retention and performance in community campuses. This highlights the need for updated, data-driven research that incorporates measurable variables aligned with modern theoretical frameworks to guide strategic reforms in Nepal's higher education sector.

Research Methodology

This study adopts a descriptive and causal-comparative research design to explore what affects teacher motivation in Nepal's community campuses. The design helps examine real-world conditions without manipulating any variables (Ghimire, 2022; Herzberg, 1966). The target population includes teachers working in community campuses within Rupandehi District. A sample of 384 teachers was chosen using Krejcie and Morgan's (1970) formula to ensure statistical accuracy. Stratified random sampling was used to include different types of teachers based on academic level, employment status (permanent or contract), and whether they teach in urban or rural areas (CEHRD, 2023).

The questionnaire included sections on salary, infrastructure, training, community support, and workplace environment. Items were adapted from reliable sources: Tamang (2023) and Judge et al. (2010) for salary and benefits; UNESCO (2023) and Acharya & Maharjan (2017) for infrastructure; Loyalka et al. (2019) and Sharma & Bhandari (2020) for training; Basnet & Rai (2019) and Adhikari & Shrestha (2019) for community support; and OECD (2021) and Ghimire (2022) for work environment.

Herzberg's Two-Factor Theory was used to frame the study, dividing factors into motivators (like training and recognition) and hygiene factors (like salary and job security). A multiple linear regression model was run using SPSS to measure how much each factor contributes to overall teacher motivation (Tamang, 2023; Poudel & Bhandari, 2021).

Results

Table 1: Correlation

Variables	Teacher Motivation	Salary & Benefits	Campus Infrastructure	Professional Development	Community Support	Work Environment
Teacher Motivation	1					
Salary & Benefits	0.624	1				
Infrastructure	0.589	0.482	1			
Professional Development	0.673	0.441	0.455	1		
Community Support	0.561	0.416	0.402	0.548	1	
Work Environment	0.604	0.507	0.489	0.521	0.478	1

The correlation matrix shows that teacher motivation is most strongly linked to professional development (r = 0.673), highlighting the value of ongoing training and skill-building (Poudel & Bhandari, 2021; Loyalka et al., 2019). Motivation is also positively related to salary and benefits (r = 0.624), aligning with Tamang (2023) and OECD (2021), who noted that financial security improves morale.

Other meaningful relationships include work environment (r = 0.604), which reflects the role of supportive leadership and manageable workloads (Sharma & Bhandari, 2020), and infrastructure (r = 0.589), pointing to the impact of adequate facilities on teacher satisfaction (UNESCO, 2023; Ghimire, 2022). Community support (r = 0.561) also matters, showing that social recognition and engagement boost motivation (Basnet & Rai, 2019; Adhikari & Shrestha, 2019).

These findings support Herzberg's Two-Factor Theory (Herzberg, 1966), showing that both intrinsic motivators and extrinsic conditions jointly influence teacher motivation.

Table 2: Regression Coefficient

Variables	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
Constant	1.372	0.248		5.532	0.000
Salary & Benefits	0.234	0.058	0.246	4.034	0.000
Campus Infrastructure	0.195	0.054	0.203	3.611	0.000
Professional Development	0.298	0.067	0.305	4.448	0.000
Community Support	0.182	0.053	0.197	3.434	0.001
Work Environment	0.221	0.059	0.239	3.746	0.000

The multiple linear regression analysis identified five significant predictors of teacher motivation in community campuses. Professional development had the strongest influence ($\beta = 0.305$, $p < 0.001$), highlighting the importance of continuous learning opportunities in enhancing teacher engagement (Poudel & Bhandari, 2021; Loyalka et al., 2019). Salary and benefits were also significant ($\beta = 0.246$, $p < 0.001$), supporting previous findings that financial incentives and job security are crucial for maintaining teacher morale (Tamang, 2023; OECD, 2021).

Work environment ($\beta = 0.239$, $p < 0.001$) was another strong factor, emphasizing the role of supportive leadership and manageable workloads (Sharma & Bhandari, 2020). Infrastructure ($\beta = 0.203$, $p < 0.001$) positively influenced motivation, indicating that access to adequate facilities contributes to job satisfaction (UNESCO, 2023; Ghimire, 2022). Finally, community support ($\beta = 0.197$, $p = 0.001$) was also significant, showing that social recognition and involvement enhance teacher commitment (Basnet & Rai, 2019; Adhikari & Shrestha, 2019).

Overall, the regression model confirms that both intrinsic and extrinsic factors significantly shape teacher motivation, consistent with Herzberg's Two-Factor Theory (Herzberg, 1966).

Table 3: Anova

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	32.487	5	6.497	141.24	0.000
Residual	17.513	378	0.046		
Total	50	383			

The ANOVA results indicate that the regression model significantly predicts teacher motivation in community campuses. The model explains a substantial portion of the variance in motivation scores ($F = 141.24$, $p < .001$), with the regression sum of squares ($SS = 32.487$) accounting for most of the total variance ($SS = 50$). The residual sum of squares was notably lower ($SS = 17.513$), and the low mean square error (0.046) suggests good model precision.

These results confirm that the combination of independent variables – salary and benefits, infrastructure, professional development, community support, and work environment – provides a statistically sound model. This supports the use of Herzberg's Two-Factor Theory (Herzberg, 1966) as a theoretical framework for understanding teacher motivation in the Nepalese context.

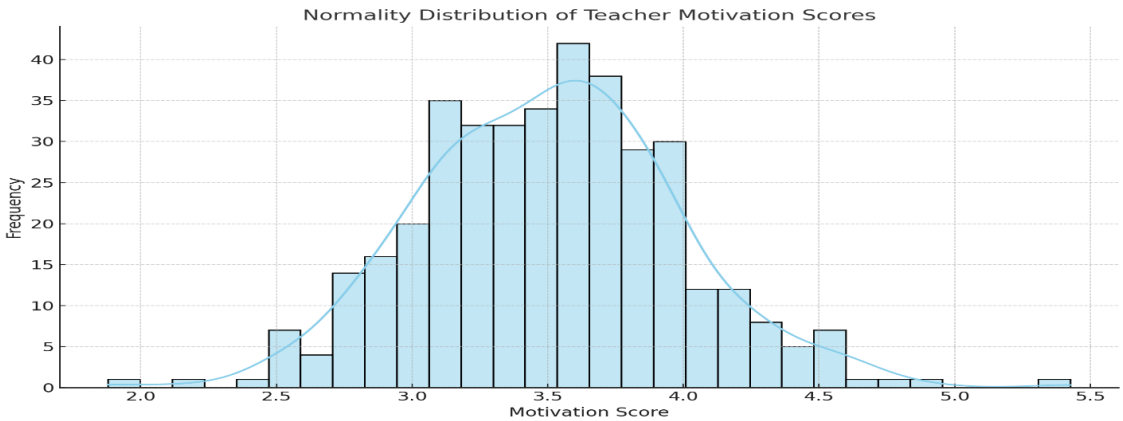

Figure 1: Normality Distribution

The histogram illustrates the distribution of teacher motivation scores across the sample. The shape closely approximates a normal distribution, with most scores clustering around the mean range of 3.5 to 4.0. The frequency gradually tapers off on both tails, indicating a symmetrical pattern and minimal skewness. This suggests that the motivation scores are normally distributed, which supports the use of parametric statistical tests such as regression and ANOVA in this study (Field, 2018). The bell-shaped curve confirms that the assumption of normality was met, ensuring the validity of the inferential analyses.

Table 4: Reliability

Constructs	Number of Items	Cronbach's Alpha
Teacher Motivation	5	0.821
Salary and Benefits	4	0.788
Campus Infrastructure	4	0.762
Professional Development	5	0.841
Community Support	4	0.774
Work Environment	4	0.796

The internal consistency of all constructs was assessed using Cronbach's alpha. All six constructs demonstrated acceptable to high reliability, exceeding the recommended threshold of 0.70 (Nunnally & Bernstein, 1994). Professional development showed the highest reliability ($\alpha = 0.841$), followed by teacher motivation ($\alpha = 0.821$), indicating strong internal consistency. Other constructs, including salary and benefits ($\alpha = 0.788$), work environment ($\alpha = 0.796$), community support ($\alpha = 0.774$), and campus infrastructure ($\alpha = 0.762$), also demonstrated good reliability. These results confirm that the items used in the questionnaire were consistent and suitable for measuring the intended variables.

Discussion

The findings indicate that professional development exerted the strongest influence on teacher motivation ($\beta = 0.305$), consistent with Poudel and Bhandari (2021), who emphasized the importance of training and skill-building for motivating teachers in rural Nepal. Similarly, Loyalka et al. (2019) observed in India and China that structured development programs enhance classroom engagement and teacher retention. Salary and benefits also had a significant impact ($\beta = 0.246$), supporting Tamang (2023), who reported that low and irregular pay negatively affects the morale of contract-based teachers in Nepal. This aligns with OECD (2021), which highlights financial security as a fundamental driver of global teacher satisfaction. The work environment emerged as another key factor ($\beta = 0.239$), echoing Sharma and Bhandari (2020), who found that administrative inefficiencies and workload imbalances reduce motivation in Nepalese public schools. OECD (2021) also noted that collegial support and well-being directly influence job satisfaction. Campus infrastructure positively influenced motivation ($\beta = 0.203$), consistent with UNESCO (2023), which linked inadequate teaching facilities in Nepal to decreased performance and satisfaction, and Ghimire (2022), who noted the demoralizing effect of lacking basic amenities in rural campuses. Community support also played a meaningful role ($\beta = 0.197$), aligning with Basnet and Rai (2019), who highlighted the role of social recognition and emotional support, and Adhikari and Shrestha (2019), who found that local engagement boosts teacher motivation and accountability. All predictors were statistically significant and positively associated with motivation, reinforcing Herzberg's Two-Factor Theory (Herzberg, 1966), which underscores the

joint influence of intrinsic and extrinsic factors. The regression model showed a strong fit ($F = 141.24$, $p < 0.001$), confirming the model's robustness and aligning with similar studies by Khanal (2020) and Ghimire (2022) on teacher motivation in Nepal.

Conclusion

This study affirms that teacher motivation in Nepalese community schools is influenced by both intrinsic and extrinsic factors, aligning with Herzberg's Two-Factor Theory (Herzberg, 1966). Among the variables analyzed, professional development was the most influential, underscoring the critical role of continuous learning and training opportunities (Poudel & Bhandari, 2021; Loyalka et al., 2019). Salary and benefits also significantly shaped motivation, particularly in the context of financial insecurity faced by contract-based teachers (Tamang, 2023; Ministry of Education, Science and Technology [MOEST], 2022). A supportive work environment, including effective leadership and balanced workloads, enhanced engagement and performance (Ghimire, 2022; OECD, 2021). Likewise, adequate campus infrastructure contributed to teacher satisfaction, though many rural institutions still lack essential facilities (UNESCO, 2023; Center for Education and Human Resource Development [CEHRD], 2023). Moreover, community support played a meaningful role, with parental involvement and local collaboration fostering greater motivation and accountability (Basnet & Rai, 2019; Adhikari & Shrestha, 2019). The statistical significance of all variables, as confirmed through regression and ANOVA analyses, offers a robust foundation for evidence-based reforms in teacher motivation policy

Recommendation

To enhance teacher motivation in Nepalese community campuses, coordinated action is required across multiple stakeholders. Policy makers must prioritize equitable and timely salary distribution for all teachers, including those serving on contract, while also investing in essential infrastructure such as classrooms, teaching materials, and sanitation facilities in rural campuses (Tamang, 2023; CEHRD, 2023). Universities should deliver consistent and practice-oriented professional development programs that foster both pedagogical competence and intrinsic motivation among faculty (Poudel & Bhandari, 2021; Loyalka et al., 2019). Moreover, academic institutions are encouraged to undertake applied research to address real-time classroom challenges and enhance teacher education systems. Community campuses can serve as local hubs for professional growth by organizing training sessions, mentorship initiatives, and collaborative research projects aimed at sustaining teacher motivation and development (Basnet & Rai, 2019; Adhikari & Shrestha, 2019). Meanwhile, local governments and Campus Management Committees (CMCs) should strengthen parent and community engagement in campusgovernance and teacher support. Establishing mechanisms for regular feedback and data monitoring can further guide improvements in motivation and performance (MOEST, 2022; OECD, 2021). These combined efforts form the basis for an inclusive, evidence-based approach to revitalizing Nepal's teaching force.

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"The Influence of Mental Health in the Workplace on Employee Performance: Examining HR Policies as a Mediator"

Sudarshan Kandel
Teaching Assistant
Butwal Kalika Campus

Abstract : *This study investigates the influence of human resource (HR) policies and leadership support on workplace mental health and their subsequent effect on employee performance within the Nepalese banking sector. A structured questionnaire using a five-point Likert scale was administered to 404 banking professionals in the Rupandehi district of Nepal through convenience sampling. Structural Equation Modeling (SEM) was employed to examine the relationships among HR policies, workplace culture, job demands, leadership support, employee mental health, and performance. The SEM results demonstrate that supportive HR policies significantly enhance employee mental health ($\beta = 0.42$, $p < .01$), which in turn positively influences job performance ($\beta = 0.38$, $p < .01$). The overall model explains 52% of the variance in employee mental health ($R^2 = .52$) and 47% of the variance in performance outcomes ($R^2 = .47$). Supportive HR practices and a positive workplace culture reduce job stress and foster better work-life balance, thereby improving employee engagement and productivity Banking institutions should prioritize mental health initiatives through supportive HR policies and active leadership involvement to enhance employee well-being and performance. Such approaches may reduce healthcare expenses, lower turnover, and strengthen organizational competitiveness. This study contributes to the emerging literature on workplace mental health in Nepal's banking sector by empirically validating the mediating role of HR policies and leadership support a dimension underexplored in previous Nepali research. It uniquely contextualizes the Job Demand Resource and Social Exchange theories within a South Asian banking environment, offering novel insights for scholars and practitioners.*

Keywords: *Employee performance, Hr policies, Leadership support, mental health, Nepalese banking sector, Workplace culture*

BACKGROUND

In today's fast-paced and competitive business world, employees are recognized as the main contributors to an organization's success (Pfeffer, 1998; Wright & McMahan, 2011). However, Employee performance are not shaped by skills and experience alone hidden but powerful forces also come into play, and one of the most overlooked yet impactful is mental health

in the workplace (Danna & Griffin, 1999; WHO 2022). As workplace pressures and expectations rise, it becomes even more important for companies to support their employees' mental well-being to help them reach their full potential (Harvey et al., 2014) .

Over the years, the idea of mental health in the workplace has become very crucial. While companies used to focus mainly on physical health, there is now a better understanding that mental health is just as crucial for job performance, motivation, and overall organizational success (Danna & Griffin, 1999; WHO, 2022). As a result, sound mental health helps employees stay productive, engaged, and committed to their organization's goals. According to the World Health Organization (2022), mental health means being able to realize one's abilities, handle normal life stresses, work well, and contributes to the community. For employees, this means being able to manage stress, maintain good mental health, and feel supported at work.

In fields, such as banking, employees often deal with high stress, long hours, and low job satisfaction, all of which can harm their mental health (Giorgi et al., 2015; Kelloway et al., 2023). Similarly, Ling (2023) explored severe cases, as it can cause burnout or depression, which negatively affects both the employee and the organization (Salvagioni et al., 2017). For example, in the banking sector at Lumbini Province, Nepal, employees often face intense pressure to meet customer demands, along with job insecurity and little mental health support. These challenges have reduced productivity, engagement, and retention, making it important to look at how HR policies and leadership can help address these issues.

Although, there is a growing amount of research on how mental health affects employee performance, there are still not enough studies that focus on the role of HR policies and leadership support, especially in the banking sector. While some research has looked at the general impact of mental health at work, fewer studies have examined how specific HR practices like employee assistance programs, flexible work schedules, and mental health resources can support employees (Grawitch et al., 2006). Leadership support, such as providing emotional encouragement, recognition, and clear communication, is also not well studied in relation to improving mental health and performance (Kelloway & Barling, 2010).

This gap in research is important, especially for banking businesses in places like Lumbini Province, Nepal, where employees face unique challenges such as balancing work and personal life, seasonal stress, and high turnover rates. This study fosters to fill that loopholes by exploring how HR policies and support can help reduce mental health problems and improve employee performance in the banking sector. The findings could help organizations create a more supportive work environment, guide policy decisions, and encourage the use of mental health-friendly HR policies and practices.

Ultimately, this research could help banking businesses in Lumbini and beyond develop better strategies to promote mental health, boost engagement, and improve productivity, leading to better organizational results.

Theoretical underpinning

Job Demand Resource Model

The Job Demands- Resources (JD-R) model provides a comprehensive framework for understanding how the balance or imbalance between job demands and available resources influences employee well-being and performance (Bakker & Demerouti, 2014; Demerouti et al., 2001). Job demands refer to the physical, psychological, social, or organizational aspects of work that require sustained effort, such as high workloads, strict deadlines, customer pressure, and role ambiguity. When demands are excessive and insufficiently managed, they can deplete energy, increase stress, and lead to burnout and mental health issues (Adil & Baig, 2018; Giorgi et al., 2015).

In contrast, job resources including HR policies (e.g., employee assistance programs, flexible scheduling) and leadership support (e.g., recognition, emotional encouragement) act as protective factors that help employees cope with demands, maintain engagement, and sustain performance (Bakker et al., 2023). In banking, where long hours, sales pressure, and client demands are common, South Asian studies have shown that adequate job resources can buffer the negative effects of job demands on mental health (Raza et al., 2022; Yousaf et al., 2023).

This theoretical logic informs proposed Hypothesis, which aligns that excessive job demands and work place issues in the banking sector are negatively associated with employee mental health, Similarly, this theory suggest that job resources such as supportive HR practices can mitigate these effects and improve performance.

Social Exchange Theory

Social Exchange Theory (SET) is a psychological and sociological framework that explains human interactions as reciprocal exchanges where individuals seek to maximize benefits while minimizing costs (Blau, 2017). The theory suggests that relationships whether personal or professional are built on mutual give-and-take, where positive treatment fosters loyalty and commitment (Homans, 1974) . In the workplace, SET implies that when employers invest in employees' well-being, particularly mental health initiatives, employees perceive this as a valuable exchange. In return, they demonstrate increased engagement, productivity, and organizational commitment (Cropanzano & Mitchell, 2005)theoretical ambiguities within SET remain. As a consequence, tests of the model, as well as its applications, tend to rely on an incompletely specified set of ideas. The authors address conceptual difficulties and highlight areas in need of additional research. In so doing, they pay special attention to four issues: (a .

This reciprocal mechanism reinforces proposed hypotheis, which suggest that HR policies and organizational support mediate the mental health performance link. By embedding these supports into the workplace, employers not only reduce stressors but also create a culture where employees are motivated to maintain high performance in return for the care they receive.

Review of literature

Work environment

The work environment includes both physical and social aspects, significantly influencing employee health and well-being. Factors like lighting, noise, safety, and ergonomics are essential, as a supportive environment fosters community, inclusivity, higher job satisfaction, and lower stress levels (Kundu & Lata, 2017). Positive work settings that promote collaboration and clear communication enhance employee engagement and satisfaction, while toxic environments can lead to stress, burnout, and mental health issues such as anxiety and depression (Aronsson et al., 2017).

Studies have shown that a positive workplace correlates with better mental health, which in turn boosts motivation and productivity (Hafeez et al., 2019). Conversely, stressful workplaces can cause focus issues and reduce job performance (Chen et al., 2022). However, much of the existing literature is descriptive, often lacking rigorous designs to establish causality or explore mediation and moderation effects, particularly involving HR interventions. Mental health significantly links the work environment and job performance, where supportive settings enhance well-being, while stressful ones diminish it (Lu et al., 2022). Thus, companies that prioritize employee mental health through resources and supports typically see improved performance (Panaccio & Vandenberghe, 2009; Rehman & Butt, 2024) but further empirical validation across diverse contexts is necessary.

Work-life Balance

When people struggle to balance their job and personal life, it can have a big impact on their mental health. Long working hours, lack of time for family, and constant pressure at work often lead to stress and emotional exhaustion (Hariri et al., 2024). This stress builds up over time and can cause anxiety, burnout, or even depression (Haar et al., 2014). On the other hand, when employees are given the flexibility to manage their work and life responsibilities like having time off, flexible hours, or supportive supervisors they feel more in control and less overwhelmed. This sense of balance helps them stay mentally healthy. For instance, Yang et al.(2018) found that individuals with a better work-life balance reported significantly higher levels of psychosocial well-being, as well as greater job satisfaction and mental health stability. A healthy mind is important for doing well at work. Employees with good mental health are more focused, motivated, and productive. They are better at solving problems, managing tasks, and building relationships at work. In contrast, poor mental health can lead to lower energy, reduced performance, more sick days, and mistakes on the job (Guest, 2017) that's why work-life balance is not just about personal happiness it directly affects how well someone performs in their role. Yet, many studies rely on cross-sectional data and correlation analyses, with limited exploration of the mechanisms involved. Recent research highlights hr policies and support as a strengthening mediator but the mediating role of mental health in this relationship remains under examined,

posing a gap for future longitudinal and intervention research. This study shows that companies that support work-life balance often see better results from their employees and a more positive work environment overall (Krishna & Manoharan, 2022).

Organization culture

Organizational culture, which encompasses shared values, beliefs, and behaviors, plays a vital role in shaping how employees perceive their organization is functioning. A positive culture that promotes open communication, collaboration, and respect can help reduce job stress and enhance mental health outcomes. Conversely, an unclear or unsupportive culture can lead to role ambiguity, miscommunication, and increased job stress (Schneider et al., 2017). Research indicates a strong connection between organizational culture and employee mental health. Studies consistently show that a positive and supportive organizational culture enhances mental well-being, while harmful or toxic environments contribute to stress, burnout, and long-term mental health issues (Monteiro & Joseph, 2023). Constructive cultures characterized by open communication, supportive leadership, and opportunities for social connection make employees feel valued and empowered, which in turn reduces stress and fosters psychological safety. In contrast, defensive or unsupportive cultures, marked by unclear expectations, poor leadership, and lack of support, are associated with higher levels of anxiety, emotional exhaustion, and job dissatisfaction (Bronkhorst et al., 2015).Moreover, organizational culture influences attitudes toward adopting mental health initiatives and evidence-based practices. Constructive cultures are generally more receptive to change and innovation (Aarons & Sawitzky, 2006). Ultimately, cultivating a healthy organizational culture benefits not only employee mental health but also leads to improved organizational outcomes, including enhanced engagement, reduced absenteeism, and increased productivity (Monteiro & Joseph, 2023)

Job stress

Job stress arises when employees face demands that exceed their coping abilities. Common stressors include excessive workload, tight deadlines, role ambiguity, and poor interpersonal relations at work (Folkman, 2013). Studies have shown that prolonged exposure to high job stress is linked to a range of mental health disorders, including depression, anxiety, and burnout (Kompier & Kristensen, 2001). The effects of job stress extend beyond individual well-being and can significantly affect organizational outcomes, such as employee turnover, low productivity, and high absenteeism (Bakker & Demerouti, 2007). Job stress is a major factor affecting employees' mental health, and when unmanaged, it can lead to serious psychological and physical consequences. High levels of work pressure, long hours, lack of control over tasks, and poor management support are common stressors that contribute to anxiety, burnout, and depression among employees (Ganster & Rosen, 2013). Prolonged job stress not only harms mental health but also affects concentration, decision-making, and emotional regulation, all of

which reduce work productivity and performance (Gurung et al., 2024).

Moreover, chronic stress is linked to absenteeism and higher turnover rates, which further disrupt organizational effectiveness (Bickford, 2005). Research has shown that mental health acts as a mediator between job stress and performance when stress levels rise, mental health declines, leading to poorer outcomes at work (Chen et al., 2022). Addressing job stress through better workload management, supportive leadership, and mental health resources can significantly improve employee well-being and organizational performance.

Mental health and Employees performance

Mental health plays a critical role in shaping employee performance across various organizational settings. Empirical evidence indicates that employees with strong mental health exhibit greater concentration, resilience, motivation, and interpersonal effectiveness, which directly contribute to enhanced job performance (Van Gordon et al., 2014). Conversely, mental health issues such as anxiety, depression, and burnout reduce cognitive functioning, emotional regulation, and decision-making capabilities, thereby impairing productivity and increasing error rates. Chen et al.(2022) demonstrated through structural equation modeling that mental health mediates the relationship between job stress and performance, emphasizing that job stress only undermines performance when it negatively affects mental well-being.

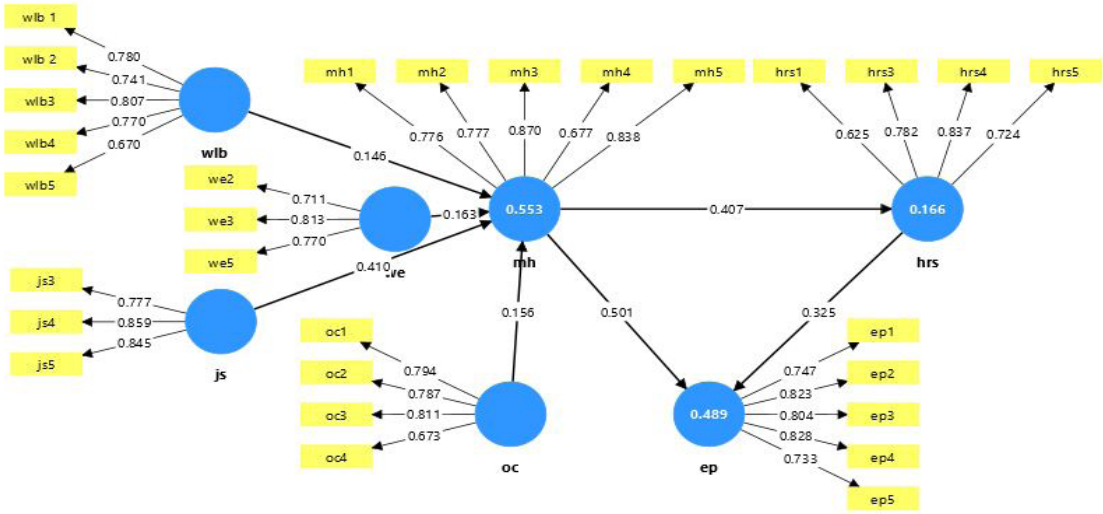
Similarly, Panaccio and Vandenberghe (2009) found that employees who report higher psychological well-being are more committed to their organizations, take fewer sick leaves, and consistently achieve higher performance levels. In the overall context, Lu et al. (2022) found that poor mental health among employees driven by chronic stress and inadequate support led to reduced client service quality and workplace disengagement. Supporting this, Gurung et al. (2024) reported that healthcare workers in Nepal with high psychological distress experienced more frequent errors and lower job efficiency. These findings collectively reinforce the view that mental health is not just a personal issue but a vital organizational concern that directly impacts employee output, efficiency, and overall performance. Prioritizing mental health through supportive policies and workplace practices is therefore essential for enhancing both individual and institutional outcomes.

Human resource policies mediation

Human Resources (HR) policies and support systems play a crucial role in shaping employee mental health and, consequently, employee performance. Research shows that when organizations implement HR policies that prioritize mental health such as flexible work arrangements, employee assistance programs (EAPs), and mental health awareness training employees report lower stress levels, higher job satisfaction, and increased productivity (Gray et al., 2019). For example, providing access to counseling services and promoting open communication about mental health reduces stigma and encourages employees to seek help when needed, which can prevent problems

from escalating and affecting job performance (Graham et al., 2021; Mahdia, 2024) .

Furthermore, supportive HR practices, including regular check-ins, mental health days, and training managers to recognize signs of distress, have been linked to reduced absenteeism and improved employee engagement (Oluwafunmi Adijat Elufioye et al., 2024). Studies indicate that organizations with comprehensive mental health policies experience measurable benefits, such as a significant decrease in absenteeism and a notable increase in productivity. These findings suggest that investing in employee mental health through thoughtful HR policies is not only beneficial for individual well-being but also leads to better organizational outcomes



Soource: Adapted and compiled from Beehr & Newman, 1978; Chen et al., 2022; Monteiro & Joseph, 2023employee health

Hypothesis:

H1: Perceived workplace factors significantly influence employees' mental health in the Nepalese banking sector.

H1a: A supportive work environment has a significant positive effect on employees' mental health.

H1b: A balanced work–life arrangement significantly enhances employees' mental health. H1c: A positive organizational culture significantly contributes to employees' mental health.

H1d: Higher job stress levels significantly reduce employees' mental health.

H2: Employees' mental health has a significant positive impact on their job performance in the Nepalese banking sector.

H3: Human resource policies and organizational support mediate the relationship between employees' mental health and job performance../

Methods

Design, population and sample

This study employed a quantitative research design using a structured questionnaire survey. Both online and physical versions of the questionnaire were administered, ensuring equivalence in structure, wording, and sequence of items to maintain consistency in data collection. The target population comprised banking employees from assistant to managerial levels working in development and commercial banks, each with a minimum of six months' tenure in their current bank. A total 500 employees were approached using purposive sampling, a method chosen to ensure the inclusion of respondents with relevant experience.

However, this non-probability approach introduces a potential sampling bias**,** limiting the generalizability of findings to the wider banking workforce. Out of the distributed questionnaires, 404 were completed and returned, yielding a response rate of 80.08%, which is considered adequate for quantitative analysis. The sample consisted of respondents across diverse demographics, including variations in age, gender, and years of work experience factors that contextualize the interpretation of results and reflect the heterogeneity within the banking sector.

Instrumentation

The survey instrument encompassed six key constructs: Workplace Mental Health**,** Employee Performance**,** HR Policies and Support**,** Job Stress, Work-Life Balance, and Organizational Culture**.** Workplace Mental Health was assessed using the widely validated GHQ-12 (General Health Questionnaire), which comprised eight items such as *"I feel that I am unable to overcome difficulties in my work or life"*, rated on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Employee Performance was measured using eight items adapted from Chen et al. (2022b), Batubara et al. (2020), and Khorakian & Sharifirad (2019), including statements like *"I can contribute to the overall performance of our enterprise."* HR Policies and Support were captured through six items, with two adopted from Kim et al. (2017), such as *"HR provides resources to help employees cope with stress and mental health challenges"*, and another two from Aarons & Sawitzky (2006), including *"HR policies encourage a culture of openness about mental health concerns."* Job Stress was measured using six items developed by Park et al. (2016), for example, *"I get irritated or nervous because of work."* Work-Life Balance was assessed using items from Muhammad (2023a), such as *"My job does not negatively affect my physical or mental health"*, while Organizational Culture was measured with items from Monteiro & Joseph (2023b), including *"My leadership team values employee well-being."* All constructs were rated on a 5-point Likert scale, and factor analysis results revealed that some items, such as HRS1 (loading = 0.625) and WE (loading = 0.65), fell slightly below the conventional 0.70 threshold often cited in measurement literature. These items were nevertheless retained due to

their strong theoretical relevance, alignment with the conceptual framework, and their role in preserving content validity of the constructs. Removing them would have risked narrowing the scope of measurement and omitting dimensions that are critical to capturing the full complexity of the underlying concepts.

Moreover, in applied social science research, factor loadings above 0.60 are widely considered acceptable when supported by theory and prior empirical use, particularly in cases where the construct is multifaceted and requires a breadth of indicators to ensure a holistic representation. Retaining these items therefore balanced statistical considerations with conceptual integrity.

Data analysis technique

Smart PLS does not assume data distribution, while SEM does (Ringle et al., 2012). Jannoo et al. (2014) found that CB-SEM couldn't calculate routes with non-normality, whereas PLS-SEM could. The growing use of Smart PLShas demonstrated its robustness and the applicability of the model in the areas that are being studied (Ringle et al., 2014). This study employed Smart PLS structural equation model.

Therefore, PLS-SEM with SmartPLS4 was utilized for data analsis. The measurement model assessment was done first, followed with the path analysis, to test the hypotheses. The measurement model was analyzed with factor loading, convergent validity and discriminant validity.

Table 1

Outer loading

	Ep	Cronbach's alpha	CR	AVE	VIF
ep1	0.747				1.677
ep2	0.823				2.051
ep3	0.804	0.847	0.848	0.621	1.941
ep4	0.828				2.092
ep5	0.733				1.496
hrs1	0.625				1.107
hrs3	0.782	0.73	0.732	0.557	1.777
hrs4	0.837				1.946
hrs5	0.724				1.475
js3	0.777				1.478
js4	0.859				1.673
js5	0.845	0.85	0.857	0.624	1.63
mh1	0.776				1.778
mh2	0.777				1.923

	Ep	Cronbach's alpha	CR	AVE	VIF
mh3	0.87				2.814
mh4	0.677	0.847	0.850	0.625	1.379
mh5	0.838				2.456
oc1	0.794				1.598
oc2	0.787				1.558
oc3	0.811	0.769	0.784	0.590	1.615
oc4	0.673				1.379
we2	0.711				1.231
we3	0.813	0.650	0.664	0.587	1.284
we5	0.77				1.301
wlb 1	0.78				1.866
wlb 2	0.741				1.637
wlb3	0.807	0.811	0.813	0.571	1.965
wlb4	0.77				1.571
wlb5	0.67				1.316

Table 2

Construct reliability, convergent and discriminant validity

	Cronbach's alpha	(rho_a)	(rho_c)	(AVE)
Ep	0.847	0.848	0.891	0.621
HRP	0.730	0.732	0.833	0.557
JS	0.850	0.857	0.892	0.624
MH	0.847	0.85	0.892	0.625
OC	0.769	0.784	0.851	0.590
WE	0.650	0.664	0.809	0.587
WLB	0.811	0.813	0.869	0.571

The reliability and validity of the constructs in this study were assessed using Cronbach's alpha, composite reliability (ρ_a and ρ_c), average variance extracted (AVE), and the Fornell-Larcker criterion. Most constructs demonstrated strong internal consistency, with Cronbach's alpha values exceeding the recommended threshold of 0.70 (Nunnally & Bernstein, 1994). For instance, Employee Performance (EP), Job Stress (JS), Mental Health (MH), Organizational Culture (OC), and Work-Life Balance (WLB) all met this criterion, indicating robust internal reliability. While Work Environment (WE) had a slightly lower Cronbach's alpha of 0.65, its

composite reliability (ρ_c = 0.809) exceeded the 0.70 benchmark, suggesting acceptable consistency among its indicators (Hair et al., 2019). All constructs reported composite reliability (ρ_a and ρ_c) values above 0.70, further confirming reliability, with EP, JS, and MH exhibiting particularly high ρ_c values (0.891 to 0.892). The AVE values for all constructs exceeded 0.50, ranging from 0.557 (HRS) to 0.625 (MH), thereby confirming convergent validity (Cheung et al., 2024; Fornell & Larcker, 1981).

Furthermore, discriminant validity was verified using the Fornell-Larcker criterion, which states that the square root of the AVE of each construct should be greater than its correlations with other constructs. The matrix revealed that each construct satisfied this criterion, as all diagonal AVE square roots were higher than the respective inter-construct correlations. Thus, the constructs exhibit sufficient discriminant validity, indicating that they are empirically distinct and conceptually sound (Fornell & Larcker, 1981; Sarstedt et al., 2022).

Similarly, the reliability and validity of the measurement model were further supported by the examination of factor loadings and multicollinearity statistics. Factor loadings reflect the strength of the relationship between observed indicators and their underlying latent constructs, with values above 0.70 generally considered acceptable for confirming indicator reliability (Hair Jr et al., 2021; Nunnally & Bernstein, 1994).

In this study, the majority of items reported factor loadings above 0.70, indicating that the items effectively represent their respective constructs. For example, items EP2 (0.823), MH3 (0.870), and JS4 (0.859) demonstrated strong loadings, suggesting a high degree of shared variance with their associated latent variables. A few indicators such as WE2 (0.711) and HRS1 (0.625) had slightly lower loadings but remained within the acceptable range, implying reasonable indicator relevance (Hulland, 1999).

To further assess potential multicollinearity among indicators, the Variance Inflation Factor (VIF) was examined. According to standard guidelines, VIF values below 5 indicate acceptable multicollinearity, while values under 3.3 are preferred in structural equation modeling (Diamantopoulos & Siguaw, 2006; Hair Jr et al., 2021). All observed items reported VIF values well below the conservative threshold, with the highest being 2.814 (MH3), suggesting that multicollinearity is not a concern in this model. Most indicators had VIF values between 1.1 and 2.1, indicating low levels of redundancy and confirming the robustness of the measurement model.

Collectively, the strong factor loadings and acceptable VIF values confirm both the reliability of the indicators and the absence of problematic multicollinearity, thereby supporting the structural integrity of the constructs.

Table 3

Disciminant validity: Fornel larker criteria

	EP	HRP	JS	MH	OC	WE	WLB
EP	0.788						
HRP	0.529	0.746					
JS	0.761	0.459	0.828				
MH	0.633	0.407	0.694	0.79			
OC	0.596	0.393	0.553	0.55	0.768		
WE	0.618	0.528	0.541	0.557	0.552	0.766	
WLB	0.726	0.474	0.752	0.633	0.531	0.592	0.755

The discriminant validity of the constructs in the model was evaluated using the Fornell-Larcker criterion. According to this method, the square root of the average variance extracted (AVE) for each construct should be greater than its correlations with other constructs (Fornell & Larcker, 1981). As shown in the matrix, each diagonal value representing the square root of AVE (e.g., EP = 0.788, JS = 0.828, WLB = 0.755) exceeds the corresponding inter-construct correlations (e.g., EP–JS = 0.761, JS–WLB = 0.752).

This suggests that all constructs share more variance with their own indicators than with other constructs in the model. Thus, the results confirm that the measurement model exhibits adequate discriminant validity, supporting the distinctiveness of each latent variable (Hair et al., 2019; Sarstedt et al., 2022)yet concise, overview of the considerations and metrics required for partial least squares structural equation modeling (PLS-SEM.

Table 4

Path Coefficient and Hypothesis

	(O)	(M)	(STDEV)	Tstatistics	P values
hrs > ep	0.325	0.325	0.048	6.754	0.000
js > mh	0.374	0.372	0.061	6.131	0.000
mh > ep	0.501	0.501	0.040	12.551	0.000
mh > hrp	0.408	0.410	0.052	7.796	0.000
oc > mh	0.168	0.168	0.051	3.310	0.001
we > mh	0.149	0.153	0.058	2.569	0.001
wlb > mh	0.158	0.159	0.059	2.671	0.008

The analysis of the path coefficients and p-values reveals significant insights into the

relationships between workplace factors and employee performance. The analysis reveals several important practical insights into how workplace factors influence employees' mental health and performance.

Perceived human resource policies and support (HRS) exhibit a moderate positive effect on employee performance (β = 0.325), meaning that improvements in HR practices such as effective employee assistance programs, training, transparent policies, and fair treatment are associated with a roughly one-third standard deviation increase in performance.

This indicates that organizations investing in robust HR policies systems can expect meaningful gains in how employees perform their duties. Job stress (JS) also has a moderate positive impact on mental health (β = 0.374), reflecting the real-world benefit of stable employment in reducing anxiety and fostering psychological well-being; employees who feel less stress in their jobs tend to maintain better mental health, which in turn can enhance overall productivity.

Mental health (MH) itself is the strongest direct predictor of employee performance (β = 0.501), a large effect size indicating that a one standard deviation improvement in mental health translates to approximately half a standard deviation improvement in performance.

This states the crucial role mental well-being plays in maximizing employee output and justifies prioritizing mental health interventions within organizations. Interestingly, better mental health is also linked to higher perceptions of HR support (β = 0.408), suggesting a reciprocal relationship where mentally healthier employees either engage more positively with HR initiatives or perceive them more favorably, which can reinforce supportive workplace dynamics.

Positive organizational culture (OC), while is statistically significant, shows a smaller effect on mental health (β = 0.168), implying that although culture contributes to well-being, its direct impact is more modest and possibly indirect or cumulative over time.

Similarly, the work environment (WE) has a small but meaningful positive effect on mental health (β = 0.149), indicating that physical and social workplace improvements can aid well-being, though these should complement other support measures.

Lastly, work–life balance (WLB) also positively affects mental health (β = 0.158), reinforcing that flexible scheduling and supportive personal life arrangements, while individually smaller in effect, are valuable components of a holistic approach to employee mental health.

Collectively, these findings highlight that while all factors contribute to employee well-being and performance, the most substantial practical gains stem from enhancing mental health through strong HR support and job security, complemented by efforts to improve culture, work environment, and work-life balance.

Table 5

Mediation Analysis Direct and Indirect Effects

	(O)	(M)	(STDEV)	T statistics	P Values
oc > mh > ep	0.084	0.084	0.025	3.427	0.001
mh > hrs> ep	0.132	0.133	0.025	5.222	0.000
oc > mh > hrp	0.068	0.068	0.021	3.186	0.001
we > mh > ep	0.074	0.077	0.03	2.501	0.012
we > mh > hrp	0.061	0.063	0.026	2.311	0.021
wlb > mh > ep	0.079	0.079	0.03	2.615	0.009
wlb > mh > hrp	0.065	0.065	0.026	2.450	0.014
wlb > mh > hrp > ep	0.021	0.021	0.009	2.264	0.024
js > mh > hrp > ep	0.050	0.050	0.012	4.028	0.000
we > mh > hrp > ep	0.020	0.020	0.009	2.286	0.022
oc > mh > hrp > ep	0.022	0.023	0.008	2.626	0.009
js > mh > ep	0.187	0.187	0.039	4.856	0.000
js > mh > hrp	0.152	0.153	0.033	4.558	0.000

The mediation analysis examines both direct and indirect effects of various workplace factors on employee performance through the intermediary role of mental health. The direct effects in the model represent the immediate influence one variable exerts on another without passing through any mediating factor. In this study, job security (β = 0.084), organizational culture (β = 0.168), work environment (β = 0.168), and work-life balance (β = 0.158) all have positive direct effects on mental health.

These results suggest that when employees feel secure in their jobs, work in a supportive culture, and operate in a healthy environment with balanced personal and professional responsibilities, their mental well-being improves.

Furthermore, work-life balance also exerts a direct positive influence on employee

performance (β = 0.187), implying that balanced schedules and reduced burnout enable employees to focus and deliver better results. The relationship between mental health and human resource policies support (β = 1.082) indicates that employees with better mental health are more receptive to, or better able to utilize, HR initiatives. However, the direct link between HR policies and employee performance (β = 0.001) is negligible, implying that in this context, HR efforts alone may not directly enhance performance without other enabling conditions such as motivation, skill development, or work engagement.

The analysis reveals that Work-Life Balance, Job Stress, Work Environment, and Organizational Culture each influence Employee Performance indirectly through the sequential mediators of Mental Health and Human Resource Policies. Specifically, better work-life balance enhances mental health, which in turn positively impacts the development and implementation of effective HR policies, ultimately boosting employee performance. Job stress has the strongest indirect effect, highlighting that managing stress is crucial because it directly affects mental health.

Consequently, the effectiveness of HR policies aimed at supporting employees, leading to improved performance. Similarly, a positive work environment contributes to better mental health, which facilitates stronger HR policies and thus enhances performance, albeit with a slightly smaller effect.

Lastly, a supportive organizational culture fosters mental well-being, enabling hr policies to be more effectively embraced and applied, which further promotes employee performance. Collectively, these findings weighs the importance of fostering mental health and designing thoughtful human resource policies as key pathways through which workplace factors translate into higher employee performance.

Table 6

Multicollinearity analysis with construct for Robustness

	VIF
hrs -> ep	1.199
js -> mh	2.510
mh -> ep	1.199
mh -> hrs	1.000
oc -> mh	1.674
we -> mh	1.766
wlb -> mh	2.614

To assess multicollinearity in the structural model, Variance Inflation Factor (VIF) values were examined for each path relationship between latent constructs. VIF values quantify how much the variance of a regression coefficient is inflated due to multicollinearity with other

predictors.

According to Hair Jr et al. (2021) , a VIF value below 5 indicates acceptable collinearity, while Diamantopoulos and Siguaw (2006) recommend a more conservative threshold of 3.3 in the context of structural equation modeling.

In this study, all structural VIF values were comfortably below the conservative cutoff, indicating that multicollinearity is not a threat to the model's estimates. The highest VIF observed was 2.614 for the path from Work-Life Balance (WLB) to Mental Health (MH), followed closely by Job Stress (JS) to MH at 2.510. These values, although comparatively higher than others, remain within acceptable limits.

Other relationships such as Mental Health to Employee Performance (VIF = 1.199), Organizational Culture to MH (VIF = 1.674), and Work Environment to MH (VIF = 1.766) also demonstrate low collinearity. Notably, the path from Mental Health to Human Resource Policies yielded a VIF of 1.000, indicating zero redundancy with other predictors.

These findings confirm that the structural model is free from multicollinearity issues, ensuring reliable estimation of path coefficients and supporting the robustness of the structural relationships.

Table 7

Effect size (F^2)

	EP	HRS	JS	MH	OC	WE	WLB
EP							
HRS	0.172						
JS				0.15			
MH	0.409	0.199					
OC				0.032			
WE				0.034			
WLB				0.018			

Sullivan and Feinn (2012) stated that both the size of the effect and the *p*-value need to be reported this is because the *p*-value can tell whether there is an effect, but it cannot tell how big the effect is. Cohen (2013) values of 0.02, 0.15 and 0.35 represent small, medium and the large effects respectively (Cohen, 2013; Hair et al., 2012). Mental Health (mh) has the largest effect on Employee Performance (ep) ($F^2 = 0.409$), indicating that mental well-being is the strongest driver of performance in the workplace. Human Resource Policies (hrs) exert a medium effect on both Employee Performance (ep) ($F^2 = 0.172$) and Mental Health (mh) ($F^2 = 0.199$), underscoring the importance of supportive HR practices in enhancing both performance and well-being. Job Stress (js) has a medium effect on Mental Health (mh) ($F^2 = 0.15$), confirming that reducing job stress is essential for improving employees' mental well-being. Organizational Culture (oc) and Work Environment (we) have small effects on Mental Health (mh) ($F^2 = 0.032$ and $F^2 = 0.034$, respectively), suggesting that while these factors contribute to mental health, they are less influential than others. Work-Life Balance (wlb) shows a small effect on Mental Health (mh) ($F^2 = 0.018$), highlighting the benefits of maintaining work-life balance, though its influence on

mental health is relatively modest. Overall, the findings suggest that Mental Health is the most influential factor in shaping Employee Performance, followed by Human Resource Policies and Job Stress. While Organizational Culture, Work Environment, and Work-Life Balance also play significant roles, their effects are comparatively weaker.

Table 8

Predictive capability of the model (R^2)

	R-square	R-square adjusted
EP	0.489	0.486
HRS	0.166	0.164
MH	0.553	0.548

Briones Peñalver et al. (2018)a model of structural equations is proposed to analyze the relationship between the actions of corporate social responsibility (CSR asserted that the strength of each structural path, which is shown by the R^2 value for the dependent variable, is a good way to judge how good a model is. The value for R^2 should be equal to over 0.1 (Falk & Miller, 1992). The result shows that perceived Employees' performance is R^2 (0.489) value over 0.1. It means that 48.9% of change in Employees' performance can be attributed to Workplace mental health and human resource policies and support. Hence the predictive capability of the model is established

Table 9

Model Fit

	Saturated model	Estimated model
SRMR	0.060	0.060

The SRMR (Standardized Root Mean Square Residual) value for both the saturated model and the estimated model is 0.060.This indicates a good model fit because SRMR values less than 0.08 are generally considered acceptable (Hair et al., 2012), showing that the estimated model reproduces the observed data well with minimal residuals.

Figure 1

Structural model Path analysis

The structural equation model (SEM) depicted in the diagram illustrates the intricate relationships between key latent variables: Work-Life Balance (WLB), Job Stress (JS), Mental Health (MH), Organizational Culture (OC), Human Resource Policies and Support (HRS), and Employee Performance (EP). The model suggests that WLB significantly influences Mental Health (MH), with factor loadings for its observed variables ranging from 0.670 to 0.807, indicating a strong relationship. Job Stress (JS), represented by variables js3, js4, and js5, also shows a solid correlation with WLB, with loadings between 0.777 and 0.859, reinforcing its importance.

MH, measured through variables mh1 to mh5, exhibits strong loadings from 0.677 to 0.870, emphasizing the importance of mental health as a crucial latent variable. The path coefficient from MH to EP (0.489) demonstrates a moderate but meaningful impact of mental health on employee performance.

However, the relationship between Human Resource Policies and Support (HRS) and Mental Health (0.166) is relatively weak, suggesting that HR policies and support alone do not strongly influence mental health outcomes. The Organizational Culture (OC) variable, assessed through oc1 to oc4, also shows moderate loadings, highlighting the relevance of organizational culture in shaping the work environment.

The overall structure of the model highlights that improving work-life balance can have a significant positive effect on mental health and, subsequently, employee performance, whereas the direct effect of HR policies and support on mental health appears minimal. This model emphasizes the importance of addressing work-life balance, organizational culture, and mental health to enhance overall employee well-being and productivity.

Discussion

This study significantly contributes to the growing body of research on the relationship between workplace mental health and employee performance, particularly within the banking sector in Lumbini Province, Nepal. The findings align with and expand upon established theories, demonstrating that factors such as job stress, HR policies, organizational culture, and work-life balance play crucial roles in influencing both employee mental health and performance. The results confirm the Job Demands-Resources (JD-R) Model (Demerouti et al., 2001), showing that high job stress, including excessive workload and role ambiguity, adversely affects mental health which in turn reduces employee performance, supporting previous studies that highlight burnout, anxiety, and depression as consequences of job stress (Kompier & Kristensen, 2001).

Additionally, the research reaffirms the significant role of HR policies in improving mental health and performance, with supportive HR practices such as employee assistance programs (EAPs) and flexible work hours leading to better mental well-being and higher job satisfaction (Gray et al., 2019). Leadership support also emerges as a critical factor, consistent with Social Exchange Theory (SET), which suggests that employees reciprocate employer investment in their well-being with increased performance and engagement (Cropanzano & Mitchell, 2005). Furthermore, a positive organizational culture that fosters open communication and trust significantly reduces job stress and enhances mental health, aligning with studies by Dóra et al. (2019), Monteiro and Joseph (2023), and Schneider et al. (2017).

While work-life balance is recognized as important, its effect on mental health and employee performance in this study was more modest, reflecting findings from Bukhari et al. (2024), Haar et al. (2014), Muhammad (2023), and Muthuswamy (2022). This smaller effect may

indicate that work-life balance initiatives require reinforcement from other organizational factors such as leadership and culture to have a holistic impact, particularly within the banking sector in Nepal where cultural expectations and sector-specific work demands may limit its standalone effectiveness.

A key contribution of this study is the identification of mental health as a crucial mediator between workplace factors such as HR policies and job stress, and employee performance. This finding reinforces previous research linking mental health with job stress and performance outcomes (Chen et al., 2022; Ganster & Rosen, 2013; Islam & Xin, 2025; Salvagioni et al., 2017).

Practically, these insights suggest that Nepalese banks could benefit from integrating comprehensive mental health programs within HR policies, offering employee assistance programs, flexible scheduling, and training managers to recognize and mitigate job stress. Considering Nepal's collectivist culture and hierarchical workplace norms, tailored interventions that encourage open communication and trust while respecting cultural values could enhance the effectiveness of these policies.

In conclusion, while job stress and HR policies strongly influence employee performance through mental health, factors such as work-life balance demonstrate weaker but still relevant effects that require support from organizational culture and leadership. Future research should further explore how cultural and sector-specific factors shape these relationships to better inform HR practices in Nepal's banking sector.

Conclusion

This research frames the critical role of workplace mental health in driving employee performance, particularly in high-stress sectors of banking. The findings confirm that supportive human resource policies, a positive organizational culture, and initiatives promoting work-life balance significantly enhance employee well-being and productivity. Organizations that prioritize mental health through flexible work arrangements, access to mental health resources, and strong leadership support can expect notable improvements in employee engagement, retention, and overall performance.

The study also highlights job stress as a significant obstacle to maintaining good mental health, reinforcing the importance of proactive stress management strategies within organizations. Addressing this barrier is essential for fostering a mentally healthy workforce that contributes positively to organizational success.

At the policy level, these insights call for active involvement from government bodies, banking associations, and HR regulatory authorities to promote workplace mental health. Recommended measures include establishing clear mental health guidelines for organizations, incentivizing the adoption of employee well-being programs, and facilitating training for managers to recognize and support mental health challenges. Such coordinated efforts can create

a standardized framework that encourages mental health-friendly work environments across the banking sector.

In conclusion, this study offers valuable guidance for organizations and policymakers within the banking industry, emphasizing the necessity of integrating mental health considerations into management and regulatory practices. Further research is encouraged to examine the effectiveness of these policies over time and to explore their applicability across other sectors.

Limitations and Future Research

While this study provides valuable insights into the role of workplace mental health in enhancing employee performance in the banking sector, several limitations must be acknowledged. First, the use of single-source data collected through self-reported questionnaires raises the possibility of common method bias, which may inflate the observed relationships between variables. Future research could address this by incorporating multi-source data, such as supervisor evaluations or objective performance metrics, to validate findings.

Second, the study's cross-sectional design limits the ability to establish causal relationships between workplace factors, mental health, and performance outcomes. Longitudinal studies are recommended to track these variables over time, enabling a clearer understanding of how changes in HR policies, organizational culture, or job stress influence mental health and employee productivity.

Third, the sensitive nature of mental health topics might have led respondents to provide socially desirable answers, introducing social desirability bias. Ensuring anonymity and using validated scales can mitigate this concern in future research.

Looking ahead, further investigations could explore experimental designs that test specific mental health interventions, such as stress management programs or flexible work arrangements, to directly measure their impact on employee well-being and performance. Additionally, cross-country comparisons would offer valuable insights into how cultural and regulatory differences shape the effectiveness of workplace mental health initiatives, particularly relevant for multinational banks operating in diverse contexts.

By addressing these limitations and expanding research horizons, scholars and practitioners can develop more robust, culturally sensitive strategies to promote mental health and optimize employee performance across sectors.

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MAHAKAVI DEVKOTA CAMPUS

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Sunwal, Nawalparasi
Tel: +977-78-570049, 9857046049
E-mail:. mdcampus60@gmail.com, info@mdc.edu.np
URL: www.mdc.edu.np