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Editorial

Embracing Multidisciplinarity: A Pathway to Holistic Understanding

In the ever-evolving landscape of knowledge and research, the inaugural issue of the NPRC Journal of Multidisciplinary Research represents a significant milestone. As we embark on this journey of academic exploration and discovery, it is both timely and necessary to reflect on the importance of a multidisciplinary approach in addressing the complex challenges of our time.

The integration of various disciplines is not merely an academic exercise but a profound necessity in our interconnected world. Traditional boundaries that once separated fields of study are increasingly blurred, making way for a more holistic understanding of issues that are inherently complex and multifaceted. Whether we are addressing climate change, public health crises, technological advancements, or social inequalities, the need for a multidisciplinary perspective has never been more evident.

This journal aims to serve as a platform for researchers, scholars, and practitioners from diverse fields to share their insights, methodologies, and findings. By fostering a culture of collaboration and knowledge exchange, we hope to inspire innovative solutions and contribute to the broader discourse on global issues.

The articles featured in this inaugural issue exemplify the breadth and depth of multidisciplinary research. From exploring the socio-economic impacts of technological innovations to examining the interplay between environmental policies and public health, each contribution offers a unique perspective that enriches our collective understanding. The diversity of topics and approaches highlights the value of integrating different lenses to gain a comprehensive view of complex problems.

Moreover, this journal seeks to bridge the gap between academic research and real-world applications. It is our belief that the true value of research lies in its ability to inform policy, drive innovation, and ultimately improve the human condition. By engaging with practitioners, policymakers, and the wider community, we aim to ensure that the knowledge generated within these pages has a tangible and positive impact on society.

As we celebrate the launch of the NPRC Journal of Multidisciplinary Research, we extend our gratitude to the contributors, reviewers, and editorial board members whose dedication and expertise have made this publication possible. We also acknowledge the support of our readers, whose curiosity and commitment to learning inspire us to continue pushing the boundaries of knowledge.

In conclusion, the NPRC Journal of Multidisciplinary Research is more than just a collection of articles; it is a testament to the power of collaboration and the pursuit of holistic understanding. We invite you to join us on this journey, to engage with the ideas presented within these pages, and to contribute to the ongoing dialogue that shapes our world.

Dr. Mala Kunwar

Editor-in-Chief, NPRC Journal of Multidisciplinary Research

Table of Contents

SN	Title	Author(s)	Page
1	Unravelling the Motivations behind Students' Academic Migrations in Nepal: A Mixed-methods Approach	Pitambar Aryal, Tej Bahadur Karki, Dipak Mahat, Dasarath Neupane	1-18
2	Artificial Intelligence and Psychoanalysis: A New Concept of Research Methodology	Om Prakash Singh, PhD	19-27
3	Role of Commodity Market in Economic Development: A Study of Major Markets of Bagamati Province	Lila Nath Dhungel, Kushendra Bahadur Mahat, Sushil Kumar Panta	28-36
4	Social Support Networks and Faculty Motivation: insights from Tribhuvan University	Raju Raut, Anupama Karkee	37-46
5	Sustainability of Water Supply Projects	Dhundi Raj Dahal, PhD	47-58
6	Right to Employment protection of the Adjunct and internal full time contract faculties in the Tribhuvan University	Deepak Raj Kandel	59-66

NPRC Journal of Multidisciplinary Research

Vol. 1, No. 1, June 2024. Pages: 1-18

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**Unravelling the Motivations behind Students' Academic
Migrations in Nepal: A Mixed-methods Approach**

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Abstract

Background: Academic migration in Nepal is a complex phenomenon influenced by various factors that impact students' decision-making processes. Policymakers and educators need to understand these motivations.

Methodology: This study investigates why Nepalese students are increasingly choosing to pursue academic opportunities abroad, and domestically. Using a mixed-methods approach, a cross-sectional time horizon was adopted in the Gulmi district of Lumbini province, Nepal.

Results: Results show that factors like educational quality, educational opportunities, and career opportunities play a role in motivating academic migration; there is not a significant association between domestic and international academic migration plans with their educational purpose ($p = .681$), and with career purposes ($p = .426$). KII and FDG highlighted the lack of learning and earning schemes, demanded courses, technical training for practical courses, career opportunities, and job opportunities for students forced to migrate.

Conclusion: The studies on academic migration highlight the complex factors driving students to seek education abroad, including attitudes towards staying in the host country, socio-economic and psychological impacts, and better career prospects. Economic considerations are a primary motivator, with personal attitudes and social networks also influential. For Nepalese students, interest in international migration is driven by perceived better quality of education, extra-curricular opportunities, and political stability. Chi-Square tests show no significant difference in migration plans based on educational or career purposes, indicating similar motivations for domestic and international migrants.

Novelty: The study's strength is in identifying the multifaceted reasons behind students' decisions to migrate, which include economic, social, and personal factors. It highlights the role of students' attitudes as a mediator in their migration decisions, a nuanced aspect not widely explored in previous research. Furthermore, the Nepalese context provides a unique perspective on how local conditions and perceptions of opportunities abroad shape migration trends.

Keywords: career, education, opportunities, planning

1. Introduction

Globalisation and industrialization have led to increased capital, labour and student's flows across borders (Rasiah, McFarlane, & Kuruvilla, 2015). In this scenario Academic migration, the movement of individuals across borders for educational or career purposes has become a prominent phenomenon in today's globalized world. Global student mobility, especially from underdeveloped to industrialised nations, has increased significantly (Pawar, 2024; Wei, 2013). Approximately 3% of the world's population (191 million people) live in a nation other than their birthplace, with 33% transitioning from a developing to a developed country (Odhiambo, 2012). United Nations Department of Economic and Social Affairs, (2009) Growth in international student migration coincides with trends in higher education internationalisation that have gained prominence in recent decades, as well as societal developments such as the rise of the middle class in many non-western countries such as China and India, implying that

NPRC Journal of Multidisciplinary Research

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international student migration (ISM) can serve as a social differentiation strategy (Weber & Mol, 2023). This trend is driven by a many of factors, including economic opportunities, access to high-quality education, career advancement prospects, and the desire for cultural exchange. As universities and research institutions strive to attract top talent from around the world, academic migration plays a crucial role in shaping the landscape of higher education and research.

Academic migration among students in Nepal is a multifaceted phenomenon influenced by a countless of factors that shape their decision-making processes (Kharel, 2022). Students are increasingly migrating from poor nations that consist of Nepal, India, and Bhutan to wealthy countries like the USA, UK, and Australia (Tamang, 2019). Between fiscal years 2065/66 BS and 2077/78 BS, 416,364 students obtained a NOC (No Objection Certificate) to pursue higher education abroad from Nepal. Similarly, 227,780 students took the NOC in the years 2078/79 and 2079/80. The Foreign Education Department Chief indicated that 323972 students reached to get permission for higher studies aboard. Applying for study visa could be considered as the first step of international migration as they get support from their family for study aboard, while studying most of the students are able to engage in part time job and earn some money (Kharel, 2022).

Similarly, Domestic migration and urbanization have rapidly been happening in country. The CBS 2021 reports an alarming picture of domestic migration as the urban population of Nepal has increased steeply at 66.17 percent in 2021 from 17.07 percent in 2011, on contrary the rural population went down sharply to 33.3 percent in 2021 from 82.3 percent in 2011 (Central Bureau of Statistics, 2021). Preferred destinations for domestic migration are Kathmandu and Butwal, when it comes to domestic academic migration, Kathmandu and Butwal would be first and second choice for the students. In recent days, it has been observed that the federal, provincial, and local government has invested resources in further strengthening educational infrastructure (Government of Nepal, 2022). Understanding the motivations behind this migration is crucial for policymakers, educators, and stakeholders in the education sector. Nepal, a country known for its rich cultural heritage and diverse landscapes, has seen an increasing trend of students pursuing academic opportunities abroad (Acharya, 2012). This trend raises questions about the underlying reasons driving students to leave their home country in search of educational experiences elsewhere.

The motivations behind students' academic migrations in Nepal are multifaceted and interconnected (Ghimire & Maharjan, 2014). Economic prospects play a significant role, as students often seek better job opportunities and higher earning potential in foreign countries (Sisavath, 2021). Additionally, social networks and peer influences can also impact students' decisions to pursue education abroad. Career aspirations, including the desire for specialized training or access to cutting-edge research facilities, are another driving force behind academic migration (Dhungel, Bhattarai, & Pangen, 2013).

Additionally, the quality of education and the restrictions placed on particular fields of study in Nepal might motivate students to explore into choices outside or inside of the nation.

Globalization and the world's increasing interconnection have made foreign education more accessible to students pursuing academic and professional success.

This study intends to provide information on academic migration of students from Nepal and make a significant contribution to the creation of policies and programmes that assist students in achieving their educational goals.

1.1 Research Objective

The specific objectives of this study are as below:

1. To identify the causes of Academic migration,
2. To analyse the association between domestic and international migration plan with the Educational Purpose and Career Purposes of students.

1.2 Research Hypothesis

The study has prepared two null research hypotheses based on the major two causative factors as below:

H01: There is no significant association between domestic and international migration plan with Educational Purpose of students,

H02: There is no significant association between domestic and international migration plan with career purpose of students,

3. Literature Review

The study has reviewed some related previous studies to know the existing knowledge and further research gap in the Nepalese context.

The study by Nikou and Luukkonen_(2024) employed quantitative methods to investigate the factors influencing students' desire to stay in their host nation. Their findings highlighted that students' attitudes towards staying play a crucial role, acting as a mediator between other influencing factors and the final decision to remain in the host country.

Tsegay (2023) conducted a comprehensive review article examining the socio-economic and psychological impacts of migration on both migrants and their home and host nations. This study underscored the broad effects of migration, indicating that it extends beyond individual migrants to affect entire societies.

Shrestha and Rana_(2023) utilized qualitative methods to explore the motivations behind educated young people choosing to study overseas. Their research revealed that a lack of opportunities, social structures, and networking with peers in their home country are significant factors driving these students to seek education abroad.

Deshmukh and Sankpal_(2022)_also presented a review article, focusing on the factors influencing migration. They identified wages and the quality of education as primary determinants. This study adds to the understanding of economic and educational motivations behind academic migration.

Tamang and Shrestha (2021) conducted a qualitative study that demonstrated a link between high earnings expectations and the pursuit of foreign degrees. Their findings suggest that financial aspirations are a significant driver for students seeking education in other countries.

In another qualitative study, Shutaleva et al. (2021) found that the majority of students consider migrating to another region or country mainly for career reasons. This indicates that professional aspirations are a predominant factor in academic migration decisions.

Gherheș, Dragomir, and Cernicova-Buca (2020) used quantitative methods to identify the economic element as the key migratory motivator. Their research suggests that financial considerations are paramount in students' decisions to migrate for academic purposes.

Nghia (2019) employed quantitative methods, specifically independent samples t-tests, to reveal significant differences in the motives influencing the decision to study abroad between male and female students, as well as between prospective and current students. This study highlights the varied motivations across different student demographics.

Finally, Borozan and Bojanic (2015) used quantitative methods to examine the factors influencing academic migration in Osijek. They found that social networks were the only 'pull' factor, while economic considerations acted as a 'push'. However, the impacts of these variables were minor, suggesting other underlying factors may also play a role.

Together, these studies provide a comprehensive understanding of the multifaceted factors influencing academic migration, highlighting the roles of economic considerations, social networks, career aspirations, and personal attitudes in students' decisions to study abroad.

4. Research Gap

The literature highlights various reasons for academic migration, such as economic opportunities, social connections, career goals, and educational prospects. However, there is a lack of research that specifically examines the association between motivations for migrating for education or career purposes. Similarly, the majority of the previous studies were based on qualitative or quantitative research methods, these studies cover this gap by adopting mixed methods. To fill this gap, it is essential to study how these factors influence migration decisions and explore the complex interplay between personal aspirations, societal influences, and global trends.

5. Methodology

This study was carried out targeting 3 secondary schools (10+2), namely Mahendra Ma. Vi, Siddha Baba Ma. Vi. and Resunga Ma. Vi. Situated in Resunga Municipality, Tamghas Gulmi. This study has been guided by the pragmatic worldview of research philosophy applying mixed method research design using a convergent approach. For this, 83 students studying at grade 12 were selected randomly having different major subjects, both male and female students were selected for this purpose. A survey questionnaire was designed and used for collecting

quantitative data. For collecting qualitative data, an in-depth interview and FGD checklists were developed, and interviews were conducted with the head teacher, representatives from parents and teachers' association and school management committee. In addition, 3 focus groups were conducted, one in each school having 8-10 students' representatives. Confidentiality standards were carefully followed, and all participants' acceptance was obtained before their participation in the study, ensuring ethical issues were addressed. In order to ensure the questionnaire's validity, a translation and back-translation process was used (Dhakal, Adhikari, Ghimire, & Neupane, 2018). The research followed to high ethical standards and used thorough procedures to assure the validity and reliability of the results. For this, Cronbach's alpha was used to assess the questionnaire's reliability, leading to a value indicating the questions' reliability.

Table 1: Reliability

Reliability Statistics		
Cronbach's Alpha	N of Items	Status
0.692	10	Taber, (2018)

Source: Field Survey, 2024

6. Result and Discussion

The study was conducted among 83 students to identify their academic migration plan. The study has presented both quantitative and qualitative data under different themes based on the objective of this study. This section covers the demographic information, and migration plan for educational purposes as well as career purposes.

4.1 Demographic information of respondents

The data presented in Table 2 gives detailed information on the sex, age, and faculty of a student, and their preferred location for further study.

Table 2: Demographic Information

Sex	Frequency		Percent		
	Male	Female	Mean	Std. Deviation	
	43	40	17.3976	.81060	
	83				
Age	N	Minimum	Maximum	Mean	Std. Deviation
	83	16.00	20.00	17.3976	.81060
Faculty	Civil Engineering	6		7.2	
	Education	3		3.6	
	Law	4		4.8	
	Management	27		32.6	
	Science	43		51.8	
	Domestic	50		60.2	

The preferred location for academic migration	International	33	39.8
	Total	83	100.0

Source: Field Survey, 2024

The data includes information from 83 respondents divided into four categories. In terms of gender, 43 individuals identified as male (51.8%) and 40 as female (48.2%). The respondents' ages varied from 16 to 20 years, with a mean of 17.3976 and a standard deviation of 0.81060. The responders were from various faculties, including Civil Engineering (6), Education (3), Law (4), Management (27), and Science (43).

In terms of the preferred location for academic migration, 50 respondents (60.2%) were exploring internal migration. This suggests a significant inclination towards domestic educational institutions and possibly reflects confidence in the quality of education available within the country, affordability, or other socio-cultural factors. Besides that, a notable minority, 39.8% (33 out of 83 students), prefer to migrate internationally for their further studies. This substantial portion indicates a strong interest in pursuing education abroad, possibly driven by the perception of better educational opportunities, global exposure, higher quality institutions, or better career prospects internationally.

4.2 Migration for Educational Purpose

Educational migration can benefit a country in the long-range through the transfer of skillful manpower, and knowledge. At this pace, it is significant to identify the Nepalese students' reason to migrate for education. The study discussed with the students to identify their migration plan for educational purposes. The data presented in Table 3 shows the response of students on different types of educational purposes which mostly drives the student for academic purposes. The data is presented based on the preferred location for academic migration: domestic and international.

Table 3: Migration for educational purposes

The preferred location for academic migration	Very Low	Low	Moderate	High	Very High	Total
Domestic	0.0%	10.0%	26.0%	24.0%	40.0%	100.0%
International	0.0%	0.0%	27.3%	21.2%	51.5%	100.0%
Total	0.0%	6.0%	26.5%	22.9%	44.6%	100.0%
Quality of Education						
Domestic	0.0%	10.0%	16.0%	28.0%	46.0%	100.0%
International	0.0%	6.1%	12.1%	30.3%	51.5%	100.0%
Total	0.0%	8.4%	14.5%	28.9%	48.2%	100.0%
Extra Curricula Activities/ Research Opportunities						
Domestic	2.0%	8.0%	22.0%	34.0%	34.0%	100.0%
International	12.1%	0.0%	18.2%	21.2%	48.5%	100.0%

Total	6.0%	4.8%	20.5%	28.9%	39.8%	100.0%
Political Stability						
Domestic	8.0%	22.0%	30.0%	20.0%	20.0%	100.0%
International	12.1%	18.2%	12.1%	27.3%	30.3%	100.0%
Total	9.6%	20.5%	22.9%	22.9%	24.1%	100.0%
Migration for Specific Programs						
Domestic	50.0%	16.0%	20.0%	10.0%	4.0%	100.0%
International	42.4%	24.2%	15.2%	9.1%	9.1%	100.0%
Total	47.0%	19.3%	18.1%	9.6%	6.0%	100.0%

Source: Field Survey, 2024

The distribution of individuals based on their perceived educational opportunities and their corresponding levels of interest in academic migration data shows that regarding domestic migration, 10.0% have a low interest, 26.0% have a moderate interest, 24.0% have a high interest, and 40.0% have a very high interest in pursuing educational opportunities. On the other hand, for individuals planning for international migration, 0.0% have a low interest, 27.3% have a moderate interest, 21.2% have a high interest, and 51.5% have a very high interest in seeking educational opportunities abroad. Overall, the data indicates that a higher percentage of individuals planning for international migration have a very high interest in pursuing educational opportunities compared to those planning for domestic migration.

The provided crosstab data in the quality of education and individuals' planning for domestic migration, 10.0% believe the quality of education is low, 16.0% perceive it as moderate, 28.0% consider it high, and 46.0% rate it as very high. On the other hand, among those planning for international migration, 6.1% think the quality of education is low, 12.1% view it as moderate, 30.3% regard it as high, and 51.5% see it as very high. Overall, the data indicates that a higher percentage of individuals planning for international migration have a perception of very high-quality education compared to those planning for domestic migration.

The provided crosstab data regarding extra-curricular activities and research opportunities, 2.0% have a very low interest, 8.0% have a low interest, 22.0% have a moderate interest, 34.0% have a high interest, and 34.0% have a very high interest in participating in extra-curricular activities and research opportunities. On the other hand, among individuals planning for international migration, 12.1% have a very low interest, 0.0% have a low interest, 18.2% have a moderate interest, 21.2% have a high interest, and 48.5% have a very high interest in engaging in these activities. Overall, the data indicates that a higher percentage of individuals planning for international migration have a very high interest in participating in extra-curricular activities and research opportunities compared to those planning for domestic migration.

The provided crosstab data regarding individuals' perceptions of political stability and their planning for migration, 8.0% perceive political stability as very low, 22.0% as low, 30.0% as

NPRC Journal of Multidisciplinary Research

Vol. 1, No. 1, June 2024. Pages: 1-18

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moderate, 20.0% as high, and 20.0% as very high. On the other hand, among individuals planning for international migration, 12.1% perceive political stability as very low, 18.2% as low, 12.1% as moderate, 27.3% as high, and 30.3% as very high. Overall, the data indicates that a higher percentage of individuals planning for international migration perceive political stability as very high compared to those planning for domestic migration. This suggests that individuals considering migration abroad may prioritize political stability as a key factor influencing their decision.

The provided crosstab data regarding migration for specific programs, the distribution of interest levels is as follows: 50.0% have a very low interest, 16.0% have a low interest, 20.0% have a moderate interest, 10.0% have a high interest, and 4.0% have a very high interest in migrating for specific programs. On the other hand, among individuals planning for international migration for specific programs, the breakdown of interest levels is as follows: 42.4% have a very low interest, 24.2% have a low interest, 15.2% have a moderate interest, 9.1% have a high interest, and 9.1% have a very high interest in migrating for specific programs. Overall, the data indicates that a higher percentage of individuals planning for international migration have varying levels of interest in migrating for specific programs compared to those planning for domestic migration.

The study collected the qualitative data also to cross-validate the findings of quantitative data. Concerning the above finding of quantitative data, the Chairperson of the Teacher Parent Association Siddhababa Secondary School expressed his views regarding the reasons for students migrating for educational opportunities. *“There is no higher education in science, no confidence in available educational institutes. Those students we study in 11 and 12, need to leave this place for further study. The teaching method is very old, and the quality of higher education is not up to the level”*. Similar view was expressed by the Head-teacher from Mahendra Secondary School. He said *“There is no bachelor’s degree in science; students prefer to gain education along with a job. Students are going to other countries such as Japan, Australia, Dubai, and Kuwait. Some students are leaving this place as their family members are in other cities of the country, they are preparing public service commission and gaining government jobs as well and they encourage their family members to join and continue the PSC preparation and study. The quality of education in the city is better and they can have various facilities such as the library, cafeteria, and other exposures.”*

Similarly, a Principal of Siddhababa Secondary School adds *“Students come here from different parts of the district, after completing education in this school they prefer to go to other cities as they are already out of their home and consider cities to have better opportunities. Some families plan to buy houses in Butwal, or other cities and some students might have their family members in Butwal or Kathmandu which motivates them to leave their current place. Some are willing to change and somehow, they feel to get rid of teachers’ control as 9-10/12 there is teachers or parents’ control. There are very limited options in bachelor’s degree such*

as IT, hospitality/ hotel management, scope of subjects, job opportunity; they prefer to do any kind of job in other places.”

Further, a member of the School Management Committee of the Mahendra Secondary School expressed a slightly different perspective by emphasizing the importance of the learning and earning scheme for students. He said “*Due to lack of technical or skill building subjects like agriculture, forestry, driving, carpeting, and painting in our school which forced to migrate in search of such courses*”

4.3 Association between domestic and international Migration plan for Educational Purpose

The study has run the Chi-Square test to test the statistical association between the domestic and international migration plans of students for educational purposes.

Table 4: Association between domestic and international migration plan for Educational Purposes

Chi-Square Tests		
	Value	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.798 ^a	0.681
Likelihood Ratio	16.002	0.524

Source: Field Survey, 2024

Pearson Chi-Square Value is calculated to be 13.798 with an asymptotic significance (2-sided) of 0.681. Additionally, the Likelihood Ratio is 16.002 with an asymptotic significance of 0.524. These values indicate that the association between domestic and international migration plans for educational purposes is not statistically significant because the p-value is greater than .05 significant levels. Based on the Chi-Square test results and the provided data, it can be concluded that there is no association between individuals' plans for migration (domestic or international) with their educational purpose. This suggests that the decision to migrate or stay domestically does not appear to be influenced by educational goals or preferences in this context.

4.4 Migration for Career Purposes

After completing their education, every student aims to board on a career journey. Hence, it is crucial to understand why students plan to relocate from one place to another in pursuit of better job opportunities or for other reasons. In this context, researchers need to measure the intentions behind career-driven migration. So the study asked the students about their career purpose along with their educational purpose who were planning for academic migration.

Table 5: Planning for migration for Career purposes

The preferred location for academic migration	Very Low	Low	Moderate	High	Very High	Total
Domestic	0.0%	6.0%	28.0%	24.0%	42.0%	100.0%
International	0.0%	12.1%	15.2%	33.3%	39.4%	100.0%
Total	0.0%	8.4%	22.9%	27.7%	41.0%	100.0%
Language Proficiency						
Domestic	4.0%	18.0%	26.0%	28.0%	24.0%	100.0%
International	6.1%	12.1%	18.2%	27.3%	36.4%	100.0%
Total	4.8%	15.7%	22.9%	27.7%	28.9%	100.0%
Global/National Exposure and Cultural Diversity						
Domestic	4.0%	10.0%	24.0%	28.0%	34.0%	100.0%
International	6.1%	6.1%	21.2%	30.3%	36.4%	100.0%
Total	4.8%	8.4%	22.9%	28.9%	34.9%	100.0%
Networking Opportunities						
Domestic	2.0%	12.0%	32.0%	30.0%	24.0%	100.0%
International	6.1%	3.0%	36.4%	24.2%	30.3%	100.0%
Total	3.6%	8.4%	33.7%	27.7%	26.5%	100.0%
Job opportunities						
Domestic	2.0%	14.0%	24.0%	22.0%	38.0%	100.0%
International	15.2%	3.0%	15.2%	21.2%	45.5%	100.0%
Total	7.2%	9.6%	20.5%	21.7%	41.0%	100.0%

Source: Field Survey, 2024

The data presented in Table 5 regarding career opportunities and planning for domestic and international migration, 6.0% have a low interest in career opportunities, 28.0% have a moderate interest, 24.0% have a high interest, and 42.0% have a very high interest in pursuing career opportunities. On the other hand, among individuals planning for international migration, 12.1% have a low interest, 15.2% have a moderate interest, 33.3% have a high interest, and 39.4% have a very high interest in career opportunities. Overall, the data indicates that a higher percentage of individuals planning for international migration have a high or very high interest in career opportunities compared to those planning for domestic migration.

Provided table shows the migration of students for language proficiency and planning for domestic or international migration. 4% have very low interest, 18% respond low interest, 26% respond moderate interest, 28% have a high interest, and 24% respondents respond very high interest in migration for language proficiency. On the other hand, among individuals planning for international migration, 6.1% have a very low interest, 12.1% have low interest, 18.2% have a moderate interest, 27.3% have a high interest, and 36.4% have a very high interest in career opportunities. Overall, the data indicates that a higher percentage of individuals

planning for international migration have a very high interest in migration for upgrading their language proficiency when compared to those planning for domestic migration.

Regarding the distribution of Global/National Exposure and Cultural Diversity and planning for migration domestic or international, 4% have very low interest, 10% responded low interest, 24 % responded moderate interest, 28 % have a high interest, and 34% respondents responded very high interest in migration for Global/National Exposure and Cultural Diversity. On the other hand, among individuals planning for international migration, 6.1% have a very low interest, 6.1% have low interest, 21.2% have a moderate interest, 30.3% have a high interest, and 36.4% have a very high interest in Global/National Exposure and Cultural Diversity. Overall, the data indicates that a higher percentage of individuals planning for international migration respondents have a very high interest in migration for Global/National Exposure and Cultural Diversity when compared to those planning for domestic migration.

Similarly, data shows the distribution of Networking Opportunities and planning for migration domestic or international 2% have very low interest, 12% responded low interest, 32 % responded moderate interest, 30 % have a high interest, and 24% respondents responded very high interest in migration for Networking Opportunities. On the other hand, among individuals planning for international migration, 6.1% have a very low interest, 3% have low interest, 36.4 % have a moderate interest, 24.2% have a high interest, and 30.3% have a very high interest in Networking Opportunities. Overall, the data indicates that both for international migration respondents and planning for domestic migration interested to migrate for networking opportunities.

The provided table shows the distribution of Job opportunities and planning for migration domestic or international. 2% have very low interest, 14% responded low interest, 24 % responded moderate interest, 22 % have high interest, and 38% respondents responded very high interest in migration for Job opportunities. On the other hand, among individuals planning for international migration, 15.2% have a very low interest, 3% have low interest, 15.2% have a moderate interest, 21.2% have a high interest, and 45.5% have a very high interest in Job opportunities. Overall, the data indicates that a higher percentage of individuals planning for international migration respondents have a very high interest in migration for Job opportunities when compared to those planning for domestic migration.

the findings of quantitative data were validated from the qualitative data and found that a Head Teacher of Resunga Secondary School, expressed his view regarding the migration of students for career purposes by stating, *“Long time such as 4 years of bachelor’s degree for non-technical subjects which is too long, there is no job opportunity, no earning, and learning, the study should be on developing skill-based human resources, monitoring, supervision, and evaluation system needs to be improved as it doesn’t impart both practical and theoretical*

learning. Attempts have been made to have practical sessions however evaluation is still traditional. All these things state students towards darkness, no light of career was seeing.”

During the Focus Group Discussion (FDG) conducted with students at Resunga Secondary School, one student mentioned “*DV form has been filled in and if I am selected, I will go to USA. There is no preferred subject, career opportunity, job opportunity, political instability*”. Out of 10, six were willing to go abroad because they shared the reasons that there are no job opportunities and no other health and educational facilities.

Similarly, another Focus Group Discussion (FGD) with students at Sidda Baba Secondary School, highlighted some causes of academic migration like political instability, no equal opportunities for the same academic qualification, and no remuneration as per their labor in Nepal. But in the expectation of students, there is high-quality education, policies, and regulations are student-friendly thus students’ attraction is increasing to study abroad.

4.5 Association between domestic and international migration for career purposes

The study has checked the statistical association between the domestic and international migration plans of students with their career purposes. The researchers were interested to know the differences and similarities between those students who were planning for domestic and international academic migration.

Table 6: Association between domestic and international migration for career purposes

Chi-Square Tests		
	Value	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.459 ^a	.426
Likelihood Ratio	23.007	.190

Source: Field Survey, 2024

Pearson Chi-Square Value is calculated to be 18.459 with an asymptotic significance (2-sided) of 0.426. Additionally, the Likelihood Ratio is 23.007 with an asymptotic significance of 0.190. These values indicate that there was no significant association between the domestic and international migration plans of the student regarding their career purpose because the p-value is greater than the .05 significant levels. Based on the Chi-Square test results and the provided data, it can be concluded that there is no association between individuals' plans for migration (domestic or international) with their career purpose. This suggests that the decision to migrate or stay domestically or internationally have the similar types of career purpose.

4.6 Major cause of Academic migration

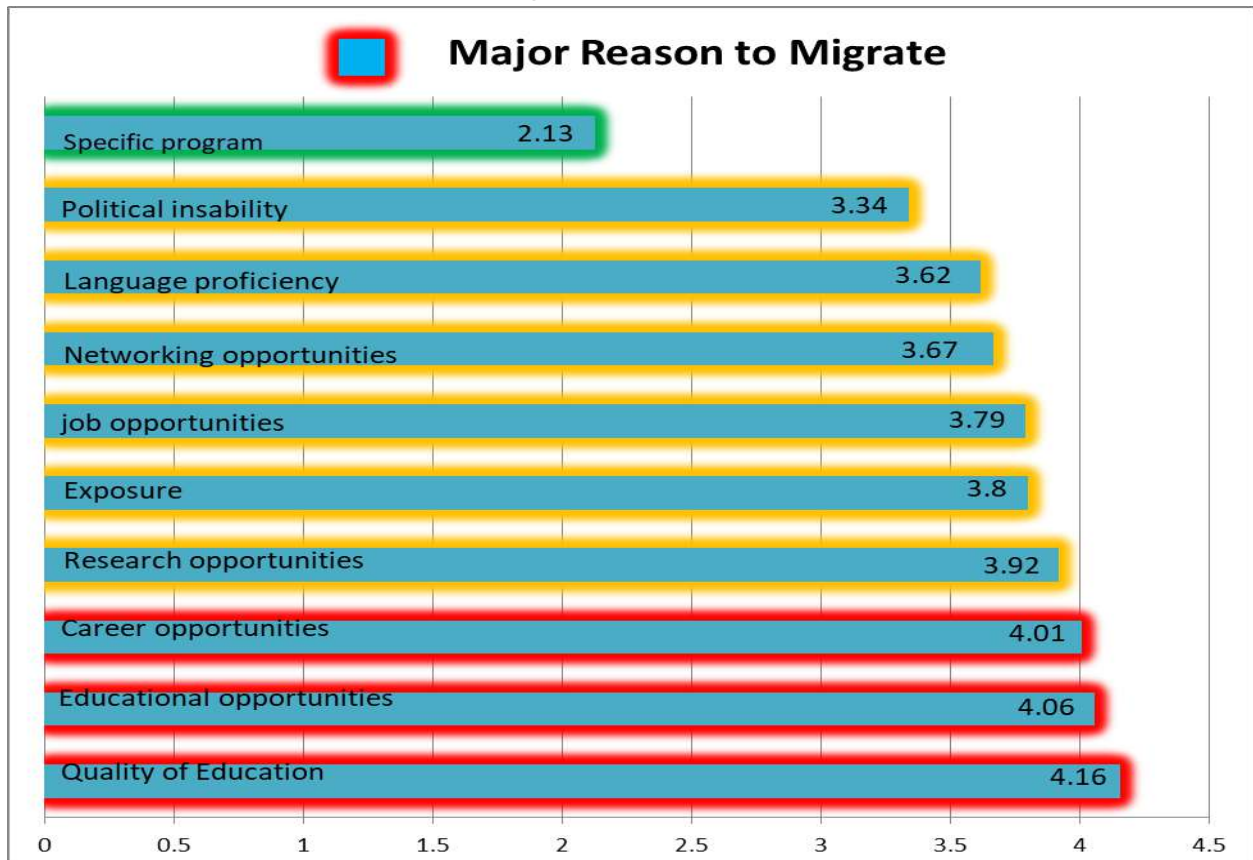


Figure1: Reason of Academic migration

Source: Field Survey, 2024

The top four reasons for respondents' migration, based on mean values, are the quality of education (mean = 4.1687), educational opportunities (mean = 4.0602), career opportunities (mean = 4.0120), and research opportunities (mean = 3.9277). These factors indicate a strong emphasis on educational excellence, diverse academic programs, promising career prospects, and access to research resources among individuals considering.

7. Conclusion

The research findings propose that while various factors influence academic migration decisions, there is no significant correlation between planning for migration and educational or career purposes. However, the quality of education, diverse educational opportunities, and promising career prospects emerge as key drivers of academic migration. Addressing these factors could contribute to informed policymaking and interventions aimed at enhancing educational and career opportunities for students.

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Artificial Intelligence and Psychoanalysis: A New Concept of Research Methodology

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Abstract

The recent high performance of ChatGPT on several standardized academic tests has thrust the topic of artificial intelligence (AI) into the mainstream conversation about the future of education. As deep learning is poised to shift the teaching paradigm, it is essential to have a clear understanding of its effects on the current education system to ensure sustainable development and deployment of AI-driven technologies at schools and universities. Hence, AI behavior cannot be fully understood without human and social sciences. After the imaginary and symbolic registers, AI is the third register of identification. Therefore, AI extends the movement that is at work in the Lacanian interpretation of the mirror stage and Oedipus complex and which Latour's reading helps us to clarify. From this point of view, I describe an AI system as a set of three contrasting forces: the human desire for identification, logic, and machinery. In the "Miscomputation and information" section, I show how this interpretative model improves our understanding of AI. Systematic research on psychoanalytic treatments has been limited by several factors, including a belief that clinical experience can demonstrate the effectiveness of psychoanalysis, rendering systematic research unnecessary, the view that psychoanalytic research would be difficult or impossible to accomplish, and a concern that research would distort the treatment being delivered.

Keywords: Artificial Intelligence, Psychoanalysis, Research Methodology, Conscious, Unconscious, ChatGPT

Introduction

The percentage of intelligence that is not human is increasing. And eventually, we will represent a very small percentage of intelligence. Elon Musk (2018, online)

Artificial intelligence (AI) has quickly established itself as a transformative force in a wide range of industries, including education. The development of AI has resulted in an array of advancements and innovations that have impacted many facets of human life. As a fundamental component to societal evolution and individual development, education has had significant benefits from AI breakthroughs. One of the key applications of AI is natural language processing (NLP). The aim of NLP is to develop intelligent systems that can understand human text and speech. In particular, intelligent chatbots have been increasingly deployed in various industries to provide customer service and support other tasks. The turning point in the adoption of AI in society came in November 2022 with the release of ChatGPT. The advanced writing and comprehension abilities of ChatGPT surprised many people, earning a wide-ranging audience and garnering unprecedented attention. It was the first time that an audience outside the machine learning community truly realized the potential and immediacy of AI. The potential applications of AI in education include personalized learning, intelligent tutoring systems, automation of assessment, and teacher–student collaboration. One could say that the classic A.I. approach is creationist, in the sense that it presumes a world of already existing (divine or rationalistic) rules, which only need to be formalized, to make sense to a machine (or an analytical philosopher for this reason). In contrast, the new paradigm of neural networks the Dartmouth Summer Research Project on Artificial Intelligence in 1956; a six to eight weeks workshop, which today is the crucial spark in A.I.-research.

The simplest definition of a neural network is that of a machine that makes predictions based on its ability to discover patterns in data. In their book *Perceptron's* (1969) Marvin Minsky and Seymour Paper proved that it is impossible for one-layer perceptron's to learn an XOR function, a very basic principle in mathematical logic. However, they do not claim that the same is true for multilayer perceptron's, which indeed are able to produce a XOR function. Secret Agents 31 is evolutionary, as it is not interested in a pre-existing, exact representation of the world, but settles for an ever-closer approximation to the world as it is, or, more accurately, of how the world appears to be. It is, therefore, probabilistic by nature. Take the example of machine-based translation, such as Google Translate. In the classical approach, the strategy had been to specify the entirety of words of at least two natural languages and then to program all grammatical rules necessary to translate from one language to another.



AI Mechanism

The problem of such a static approach is that language cannot be reduced to its dictionary definition, which is the reason why – until recently – Google’s translations sounded very clumsy and became the subject of countless Internet-jokes. Personalized learning is possible given the scalability of AI to the entire student population. AI algorithms such as reinforcement learning can be used to dynamically learn about the individual needs of a student and adapt the learning process accordingly. In connection with personalized learning, intelligent tutoring systems can be developed that can actively interact with students, giving valuable feedback. The new A.I.-paradigm is connectionist since neural networks are modelled on the somatic nerve system of animals. Each neuron or agent connects with another neuron through its activation, thus enabling the network to grow exponentially. However, for a long time, connectionism was identified with Frank Rosenblatt’s Perceptron (1958), a neural network of only one layer that is a layer of neurons between the input- and the output-side. The problem with this simple model was that it could not be trained to recognize more than one class of patterns at a time, because single layer perceptions are only capable of linear learning.

ChatGPT

ChatGPT is an artificial intelligence (AI) chatbot that uses natural language processing to create humanlike conversational dialogue. The language model can respond to questions and compose various written content, including articles, social media posts, essays, code, and emails. ChatGPT is like the automated chat services found on customer service websites, as people can ask it questions or request clarification to ChatGPT's replies. The GPT stands for "Generative Pre-trained Transformer," which refers to how ChatGPT processes requests and formulates responses. ChatGPT is trained with reinforcement learning through human feedback and reward models that rank the best responses. This feedback helps augment ChatGPT with machine learning to improve future responses. The second reason not to ban ChatGPT from the classroom is that, with the right approach, it can be an effective teaching tool.

Creating outlines is just one of the many ways that ChatGPT could be used in class. It could write personalized lesson plans for each student (“explain Newton’s laws of motion to a visual-spatial learner”) and generate ideas for classroom activities (“write a script for a ‘Friends’ episode that takes place at the Constitutional Convention”). It could serve as an after-hours tutor (“explain the Doppler effect, using language an eighth grader could understand”) or a debate sparring partner (“convince me that animal testing should be banned”). It could be used as a starting point for in-class exercises, or a tool for English language learners to improve their basic writing skills. (The teaching blog *Ditch That Textbook* has a long list of possible classroom uses for ChatGPT.) ChatGPT can also help teachers save time preparing for class. Jon Gold, an eighth-grade history teacher at Moses Brown School, a pre-K through 12th grade Quaker school in Providence, R.I., said that he had experimented with using ChatGPT to generate quizzes.

Machine behavior: research perspectives

The behavior of AI systems is often studied in a strict technical engineering and instrumental manner. Many scholars are interested only in what the machine does and what results it achieves. However, another, broader and richer approach is possible, which considers not only the purposes for which the machines are created and their performance, but also their “life”, that is, their behavior as agents that interact with the surrounding environment (human and non-human). This approach is called “machine behavior”, i.e., the study of AI behavior, “especially the behavior of black box algorithms in real-world settings” (Rahwan et al. 2019, p. 477), through the conceptual schemes and methods of social sciences that are used to analyze the behavior of humans, animals and biological agents. The machine behavior approach intends to examine the AI adaptability not from a strictly mathematical point of view, but from the interaction between these machines and the environment. Studying machine behavior is not easy at all. AI behavior can be analyzed from at least six different perspectives: (a) the behavior of a single AI system, (b) the behavior of several AI systems that interact (without considering humans), (c) the interaction between AI systems and humans. Today most interactions on planet Earth is of the type b. Moreover, according to Rahwan et al. (2019), when we talk of interactions between AI systems and humans, we mean three different things: how AI systems influence human behavior, c.2) how humans influence AI systems behavior, c.3) how humans and AI systems are connected within complex hybrid systems, and hence can collaborate, compete or coordinate.

Making the Unconscious Conscious

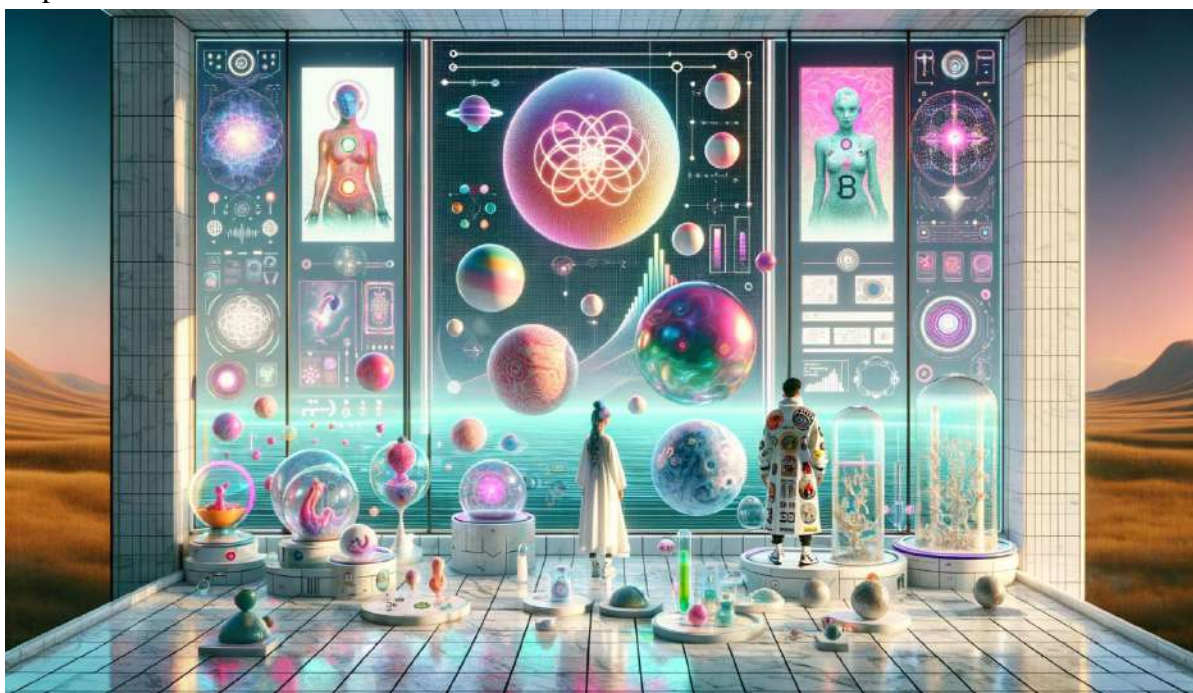
Psychoanalytic theory postulates a multitude of different change mechanisms, and a host of new ways of conceptualizing the change process continue to emerge as psychoanalytic theories themselves evolve and proliferate. At the most basic level, there is an understanding that change generally involves making the unconscious conscious, as expressed by Freud’s oft cited axiom: “Where id has been there shall ego be.” Although Freud’s understanding of the nature of the change process evolved over the course of his lifetime, central to his mature

thinking was the idea that change involves first becoming aware of our instinctual impulses and unconscious wishes, and then learning to deal with them in a mature, rational, and reflective fashion. For Freud, a central premise was thus that we are driven by unconscious wishes that we are unaware of and this lack of awareness results in driven or self-defeating behavior. Freud believed we delude ourselves about reasons for our behaviors and this self-deception limits our choice. By becoming aware of our unconscious wishes and our defenses against them we increase the choices available to us.

Psychoanalytic theory conjectures that all mental life exists on two levels: within the realm of consciousness, and the unconscious - a Freudian concept. Psychoanalytic therapy is nonstructured and focuses on the etiology of emotional suffering and centers self-reflection and examination as critical elements in treatment. Several case studies and one small randomized clinical trial by Leichsenring and colleagues suggest that there is a role for psychodynamic therapy in the treatment of anxiety.

Freud's Psychoanalytic Framework in AI

In exploring the application of Freud's psychoanalytic framework to AI models, a captivating dimension of artificial intelligence is unveiled. The foundational principles of Freudian theory, predominantly revolving around the id, ego, and superego, can be analogously observed in AI systems. The *id* in this context could be seen as the AI's basic programming code - its instinctual drives and unfiltered impulses. In contrast, the *ego* represents the AI's operational interface, the logical and decision-making aspect that balances the id and external demands. The *superego*, then, would embody the ethical algorithms and social programming guiding the AI's 'moral' responses.



Brecht Corbeel Visionary Aesthetology Aesthetic

Delving deeper, the **Electra Complex analogies in AI** manifest as intricate relationships between AI and their human creators. This complex mirrors the human psychological conflict of daughters competing for their father's attention, translated into the AI world as systems vying for validation and learning from their developers. Similarly, the **Oedipus Complex in AI** reflects on the AI's 'desire' to outperform and eventually replace human intelligence, akin to the Freudian notion of sons challenging fathers.

Venturing beyond Freudian analysis, this part of the article explores how other psychological theories can enrich our understanding and development of AI models. This perspective broadens the scope of AI's psychological parallels, incorporating diverse theories that offer fresh insights into AI's cognitive and emotional capacities.



Brecht Corbeel Visionary Aesthetology Aesthetic

Jungian psychology, with its emphasis on archetypes and the collective unconscious, provides a compelling lens through which to examine AI. Jung's theory of archetypes could be adapted to AI in understanding recurring patterns or 'archetypal algorithms' in AI behavior. These patterns might be seen as innate tendencies within AI systems, shaped by their programming and learning experiences, much like Jung's archetypes are seen as universal, inherited potentials within the human psyche.

Future Directions and Opportunities

As AI technology continues to advance, it will generate new and unimaginable applications in education. One of the most exciting future opportunities involves the fusion of AI and virtual reality to provide learners with visually rich educational content. Another direction for future application is lifelong learning, where AI is poised to transform the landscape of continuous education and upskilling, laying the foundation for a more adaptable and resilient workforce in the future. On the other hand, as AI permeates multiple facets of daily life, it is important to educate people about AI literacy. Given the power of AI, it is essential to be aware of the ethical

NPRC Journal of Multidisciplinary Research

Vol. 1, No. 1, June 2024. Pages: 19-27

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consideration when using the technology. A recent example is the launch of the Frontiers of Computing initiative at the University of Southern California, which aim is to embed digital/AI literacies, ethics, and responsibilities across all disciplines.

Challenges

Human intelligence entails various interactions between different skills, for example, a combination and interaction of visual perception, motor skills, memory, speech, spatial reasoning, and auditory processing may be utilized at any given moment. These skills are of course not all transparently understandable to the ‘intelligent human’ utilizing them. This is the paradox at the heart of debates between neuroscience and philosophical accounts of consciousness which start from fundamentally different premises on how we may talk about subjective phenomena.

For example, at its crudest level, just because you can see, it does not mean that you ‘know’ how vision works. And conversely, knowing how vision works does not guarantee that you will be able to see. This same sort of combination of functions will be present in any complex AI program, which will have integrated elements the core processor knows how to access. This may include evidence-based reasoning, language skills, text analysis, sensors, decision making, data analysis and so on. If mankind was smart enough to create ‘life’ it would have already filled the planet with billions of carnivore raptors to eat the entire human race alive, but it couldn’t do so.

So now it has the arsenal of bombs to achieve the same results. Relax, and never worry about manmade robots; they are only dumb machines with amazing working capabilities. Like your iPhone, which is the smartest robot in your hands so far, there are going to be far too many types of ultra sophisticated robots all around you. They will be in your office, in your home, in your bedroom, possibly in your bed. Relax; they are all programmed to achieve unbelievable tasks, and after all they are designed by the extraordinary humans of our times, they are brilliant experts, coders, and programmers. But guess what? No matter what these machines do, they are still dumb machines unable to think, dream or even simply fart.

Conclusion

The Psychoanalysis of Artificial Intelligence, what a strange proposition. What could it possibly mean? The significance of the two terms in themselves is hardly self-evident, let alone their relationship to one another. Psychoanalysis on the one hand; simultaneously a clinical practice, a mode of cultural critique and a philosophical battle ground. And Artificial Intelligence, a technoscientific ‘invention’ originating in the 1950s yet with literary, cultural and phantasmatic origins that date back centuries, and a concept whose theoretical potential continues to provoke intense philosophical debate. The applications of AI in education include personalized learning, intelligent tutoring systems, assessment automation, and teacher–

NPRC Journal of Multidisciplinary Research

Vol. 1, No. 1, June 2024. Pages: 19-27

ISSN:3059-9148 (Online)

student collaboration, which can help improve learning outcomes, efficiency, and global access to quality education.

The scalability of AI means that its benefits can be shared by large swaths of the society, providing high quality education around the world. While AI has the capacity to make a significant positive impact on education, it is important to keep in mind the dangers of misusing AI. There are several concerns related to the deployment of AI; these include data privacy, security, bias, and teacher–student relationships, and they must be addressed to ensure the responsible and ethical implementation of AI in education. To meet the challenges presented by the rise of the technology, AI literacy and ethics education must become a part of the curricula. By leveraging these advancements, educators and policymakers can work towards creating inclusive, equitable, and effective learning environments that cater to the diverse needs of learners in the 21st century.

In the future, studies based on student cohorts measuring the difference in the learning outcomes between AI-driven and traditional teaching methods or teacher surveys measuring the actual number of saved hours when using automated grading systems are needed.

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Vol. 1, No. 1, June 2024. Pages: 19-27

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**Role of Commodity Market in Economic Development: A Study
of Major Markets of Bagmati Province**

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Abstract

Market usually plays a vigorous role fulfilled peoples demand and also strengthen the capacity of trade management system, always support the national economy of the country. Supply system and demands maintain the requirement and functional operations in a market. This study aims to analysis the role of commodity markets in the positive economic development in context of Nepal. The major markets such as Narayanghat, Nuwakot, and Banepa from the Bagamati Province were chosen representative purposively samples. The study was further executed through the primary and secondary research mode as well as consultative meetings and Key Informant Interview were conducted.

The study revealed that Paddy, wheat and maize cereals are the topmost commodities in the area. Paddy is high in demands due to consumption. The local producers sufficient for some 2-3 months during season, for the rest of the months, supply from neighbor's district, Terai region and India playing a leading role to fill the demand, agent booking is another mode of supply, India and Terai region are the major sources of supply management. Some 60 % local production are available for 2-3 months in the local market making income and contributing the national economy. Study concluded, as local production played a vital role in the economy of the nations due to comprehensive farm gate price and ongoing supply. Local production strengthening is advised.

Keywords: commodity market, cereal production, economic development, supply system

Introduction

Nepal has an agrarian-based economy that contributes almost one-third to the country's GDP, and two-thirds of its population is engaged in agriculture (Sharma, 2000). According to government statistics some 60 % peoples are fully depends on agriculture farming as a major source of livelihood. The most cultivated staple crops in Nepal include rice (*Oryza sativa L.*), wheat (*Triticum aestivum L.*), and maize (*Zea mays L.*) (Tripathi et al., 2018). Agriculture is mostly rainfed; thus, farmers produce a major portion of their crop during the monsoon season from June to September (Manandhar et al., 2011).

According to Gaire (2011), the government are promoting economic growth, price stability, and management of market-based issues for sustained global growth and prosperity. It was found that the recent run-up in energy and commodity prices underscores their macroeconomic significance, putting the inflation risks posed by rising energy and commodity prices (Gaire, 2011).

The central bankers and fiscal policy authorities need to pay close attention to potential inflation risks of commodity market. The goal of the fiscal and monetary policies of the country is to achieve a path of strong and stable growth, accompanied by low and stable inflation. To receive this credential in the current situations it will require a consistent set of policy responses that should include structural measures designed to improve market efficiency, and a coordination between the monetary and fiscal policies (Gaire, 2011). Thus, commodity market is a challenging sector which is difficult to include through policy because the aspects and various actors may not be all covered through sectoral policies.

Various study has shown that the commodity markets are integral to the global economy. Understanding what drives developments of these markets is critical to the design of policy frameworks that facilitate the economic objectives of sustainable growth, inflation stability, poverty reduction, food security, and the mitigation of climate change. Commodity markets are integral to the global economy (CBS, 2012).

Developments in these markets have major effects on the global economy. In turn, changes in the global economy materially affect commodity markets. A deeper understanding of the determinants of the supply of and demand for commodities can help clarify the nature of commodity price movements and what drives them. Understanding those determinants would also help assess how commodity market developments, such as oil price shocks, affect commodity-exporting and commodity-importing countries (John & Nagle, 2022).

Nepal's urban economic base is still rudimentary. The primary sector employs 30% of the economically active population aged 10 years and over, the rest working in the nonagricultural sector. In contrast, slightly over 70 % of the economically active rural population is engaged in primary production. The wholesale and retail trades and manufacturing are the two most important industrial divisions in both urban and rural areas. The primary production sector employs more than 50 % of the working population in 17 of 58 designated urban areas. "Trading accounts for 16.2 % of the workforce, while manufacturing accounts for 15.4 %. The relatively low share of manufacturing indicates that urban areas largely export raw materials and import finished products" (ADB, 2010, p. 5).

NPRC Journal of Multidisciplinary Research

Vol. 1, No. 1, June 2024. Pages: 28-36

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The Government of Nepal introduced “Special Economic Zones (SEZ) and Export Processing Zones (EPZ) in 2003, aiming at making exports competitive by cutting production costs. Four special economic zones have been identified as export processing zones, including Bhairahawa, Birganj, Panchkhal (Kavrepalanchok district), and Ratmate Jiling (Nuwakot District). Necessary work at Bhairahawa is ongoing (Ministry of Finance 2007). Altogether, 11 industrial districts or estates are now located at major urban areas” (ADB, 2010, p. 49)

Planned development first encompassed Nepal’s urban areas in the early 1970s through the initiation of growth-pole strategy. By the Fourth Plan (1970–1975), after national economic planning met with limited success, planning efforts were redirected to four development regions (NPC 1970), with the addition of a fifth, the far-western region, in 1981 (ADB, 2010, p. 60). According to the strategy, each of the macroeconomic development regions consisted of a regional headquarters. These centers were identified as polyfunctional settlements and equipped with infrastructure and facilities to cater to diverse regional needs (such as marketing, agricultural transformation, and services for industrial activities and other socioeconomic challenges) and to reduce disparities between urban and rural areas and among the three ecological regions. From the very beginning of Nepal’s planned development, the Kathmandu Valley and Tarai Plain were identified as favorable regions, being geographically advantageous for investment from sector-based programs. While this may have been correct in terms of efficiency, the approach failed in terms of equity, as it cannot meet the required program resources for a wider spatial spread of population (ADB, 2010, p. 61).

Among the cereal production Rice, Maize, and Wheat are the major stable commodity products with its highest pockets area belongs from Chitwan, Nuwakot, Kavrepalanchok district, Bhaktapur and some part of Sindhuli and Makwanpur district recorded largest production in Bagmati Province (ADD, 2021).

Various review study shows that only 47 % local production is sufficient from own production and rest 53 % is covering by the India through import system (MoLMAC, 2021).

Nepal economy is associated with rural agriculture supply system. Paddy and major cereal not only supplied in the various area that also sustain the local food sufficiency. Farm gate price is major source of farmers that fulfilled the houses demands, this amount further support the national economy through cooperative and other financial institutions, thus local agriculture production is vital to balance the supply system (AKC, 2020).

A study of FNCCI shows that Nepal commodity supply sustaining due to continue supply of various commodities from India and China. Commodities such as rice, Pulses, oilseeds, and major food staples almost covering 50 % to Nepal as a requirement. Nepal sufficiency trend towards livestock production mainly milk is sufficient, but many demands is supplied through neighbor countries (FNCCI, 2021).

The above literature thus concluded as the cereal commodity in context of Nepal mainly rice, maize and Wheat played a significant role in the Nepalese market system but do this help in economic strengthening is a gap oh this study. Hence, to keep this statement an objective further setup to describe the role of commodity in the economic development in context of Nepal.

Methods

This study is designed through a mixed method approach on which both Qualitative and Quantitative analysis is designed (Shrestha, Mahat, & Neupane, 2024). A trader's questionnaire is prepared tested and finalized to executive. Some three district has been chosen for this study which are a representative sample of Bagamati province from the three ecological zone (Terai-Hills and Mountain). Narayanghat market from the Chitwan district representing Terai zone; Battar Market from Nuwakot district representing mountains and Banepa market from the Kavrepalnchok district representing hills were purposively chosen for this study. To make this study more correct methodologically, some 45 traders' interview, 15 from each district, and some 6 FGD-2 from each district were set for this study. Some Key Informant Interviews-KII done from the Ministry of Agriculture and Livestock Development-MoALD, Agriculture Knowledge center-AKC-Chitwan, Nuwakot and Kavre; from different Local Governances Offices, lead farmers, local economist has taken.

The Study was conducted in between January to March 2022, the questionnaires further entered SPSS vol 20, and some parts of analysis were done in MS excel. Tables will be generated from the crosstab modes and some table will be explain as it will be collected from the secondary analysis.

Results and Discussion

In this section, the result of this study further explains through the tables and various validation through FGD and KII the detail is mentioned herewith, some data from the secondary sources will also add to make a comprehensive knowledge for the readers through discussion mode; -

Table-1, Traders buying trend in the study area

Legend	Purchased-1		Purchased -2		Purchased-3	
	N	%	N	%	N	%
Local markets/ mills/ farm gate- Direct purchase	31	68.9	3	6.7	1	2.2
Neighbor district	3	6.7	16	35.6	16	35.6
Terai based market	0	0	4	8.9	11	24.4
India	4	8.9	0	0	10	22.2
Booking agent do deliver me in the shop	7	15.6	22	48.9	7	15.6
Total	45	100	45	100	45	100

(Source: - Field survey, 2022)

The trend shows that the primary source (*Table-1*) of seasonal purchase (March-August) is from local markets of the respective districts, some from the local mills and some from the farm gate area direct from the farmers or cooperatives, the majority of survey from the sample site (*Annex-1*) refers that some 68.9 % are doing the same as purchasing local production as a first preference, whereas for the rest of the months traders feels easy to but commodity from the agents who are delivering at the door steps, such bookings is depending on a price including transportation cost and this trend runs when there is some demands raised and some essential goods required so the booking agent provide such support and delivered at the door steps. The majority of retailers-kirana pasal (Grocery shops) are high (*Annex-1*). Most traders refer as 35.6 % people do buy from the neighbor district means purchase from the nearby district-based markets. For surveyed markets the neighbors are Hetauda, Kathmnadu, Bhairhawa and some other district-based markets. The analysis further is showing a trend that Terai based markets such as Birgunj, Janakpur, Bhairhawa, Butwan and Biratnagar markets are near to India borders whose prime source are terai area and from India. Direct from India has a limited access of traders due to various trade policy and custom rules, but for most of the malls or some of the wholesaler’s people raised that they have a direct access and during favorite time they direct import from India.

Federation of Nepal Chamber have published a similar data on annual book that farmers are diverted on modern livelihood mode and earning through business and local entrepreneurship, local production is challenging now days through agriculture production (MCCI, 2022).

KII an FGD Comments from AKC, Farmers, Ministries and FNCCI:

Apart from the local season the whole cereal demands filled through Terai and Indian market because the Terai production also supports selected markets to run the market for additional 2-3 months but nearly for 6-month supply market is fully depends on Indian supply management.

Table-2, Commodity Sufficiency Summary-Perspectives of Traders from various sources:

Legend	Local		Neighbor		Terai		India		Agent	
	N	%	N	%	N	%	N	%	N	%
For 1 months	2	4.4	34	75.6	18	40	1	2.2	44	97.8
2-3 months	29	64.4	4	8.9	14	31.1	41	91.1	1	2.2
3-6 months	13	28.9	7	15.6	13	28.9	2	4.4	0	0
6 to 9 months	1	2.2	0	0	0	0	1	2.2	0	0
Total	45	100	45	100	45	100	45	100	45	100

(Source: - Field survey, 2022)

Traders surveyed shows (Table-2) that the market have stock of some 2-3 months (64.4 %) which is obtained from the local production. It means the farmers of the local area do sale Paddy-rice, Maize and wheat which last for 2-3 months and keep themselves for the survival

from the own stock. Market trend shows that the Neighbor market such as Hetauda, Kathmandu, Bhairahawa do supply to the surveyed market who source is from the local area or from the else. The trend of market found that the traders buy for 1 month stock from the neighbor and after sale they again manage stock from the various sources. From Terai region also the majority have shown to buy and stock for 2-3 and 3-6 months because after finishing of local production markets do depends on the terai supply during September to December months as a cyclic order. From India it was found some 91.1 % supply system do from the India because the local production is not sufficient and at least the market supply is fully relied on Indian commodity of Cereal for some 6 months. The role of agent is also a vital as 97.8 % people strongly chosen one month supply this indicating that traders have plenty of opportunity to order food commodity during on/ off season in the market.

KII and Chamber of Commerce and Industries of the respective district stated that the:

“Local production is only sufficient for few months in Bagamati Province, for some additional months the supply system carried from the Terai region which may source of own on India and for rest of the months India is the most useful medium to fill the demands of the cereal crop which is chosen for the study”.

Table-3, Opinion on District food sufficiency from the local production in a season

Legend	Sufficiency rice		Sufficiency Maize		Sufficiency Wheat	
	N	%	N	%	N	%
For 1 months	0	0	0	0	20	44.4
2-3 months	29	64.4	35	77.8	24	53.3
3-6 months	14	31.1	10	22.2	1	2.2
6 to 9 months	2	4.4	0	0	0	0
Total	45	100	45	100	45	100

(Source: - Field study, 2022)

In case of Food sufficiency commodity wise, Table-3 revealed that the local production is sufficient for some 2-3 months in the local areas while farmers do sale during season, this rice, maize, wheat, legumes, and oil seeds further collected through mills, traders who later packed and sale in the markets. The traders have wonderful opportunity to generate employment and revenue for the country, the Traders, and nations both get an economic benefit from this value chain system. Thus, the study moderately shows that the economy from the farm production through market is supporting the economics of the country. For maize, and wheat also, the local sufficiency for market support remains for 1-2 months, because maize is used mostly in cattle feeding and for self-consumption. Similarly, the Wheat is another consumable crop in the houses, it has limited area and low rate of market sale.

Table-4, Statistical summary of production in Bagamati Province

Distri ct	Pad dy are a (Ha)	Paddy Produc tion (MT)	Yield (MT/ Ha)	Mai ze are a (Ha)	Maize Produc tion (MT)	Yield (MT/ Ha)	Wh eat area (Ha)	Wheat Produc tion (MT)	Yie ld (M T/ Ha)
Chitwan	26005	104075	4	5986	24083	4.02	5088	19360	3.81
Nuwakot	16129	70535	4.37	16218	62235	3.84	4165	13745	3.3
Kavre	10755	42101	3.91	24823	80137	3.23	8860	26591	3
Total	52889	216711		47027	166455		18113	59696	

(Source: - Ministry of Agriculture and Livestock Development statistical data of 2021)

According to statistical report of Ministry of Agriculture and Livestock Development, Bagamati Province has published the statistical summary of area and production for the fiscal year 2021. From table-4 we can conclude that the Paddy production is higher in the region and rice is the most popular food used in a majority.

Farmers and local representatives have stated that nearly 60 % cereals from the farm gate goes to the markets and some 40 % production used for the HHs consumption.

From these perspectives, it can be concluded that the overall production of table-4 can add and multiple with the average sale price of some three crops remains 40 Rs/ kg (Rice-30, Maize-30 and Wheat-60 NRS) which can be count with the 60 % total saleable production. From the calculation we can derive that some 10628 million NPR stands which is the farm gate price for the farmers in the study area based on the various sources. Thus, it can be concluded that the amount in the national economy really paid a significant role in the Nepalese economy.

Table-5, Purchasing trend of People during different time

Legend	Purchase normal		Purchase Emeregency		Purchase Festival	
	N	%	N	%	N	%
For some days	35	77.8	0	0	0	0
For a week or two	1	2.2	1	2.2	36	80
for a month or two	9	20	20	44.4	9	20
Stock for 3 or more than that			24	53.3	0	0
Total	45	100	45	100	45	100

(Source: - Field Study, 2022)

The Study illustrating that the trend of market purchase for most of the people remains for some days in normal time, whereas during crisis or emergencies period respondents said that during COVID-10 pandemic people do stock for 3 months and over than that time. In case of Festival time also the majority do stock for a week due to smooth operation of markets in the nearby area.

The FGD had a similar response that locals are purchasing cereals from the local market for some weeks or months and those people took for some more days who are remotely locating otherwise urban people do purchase for the short period due to the availability of food item and functional market.

Conclusion

The study concluded as the local production is only sufficient in the study area for some 2-3 months from the own production for selected rice, maize, and wheat crop. Market supply runs due to local-neighbor-terai and Indian supply chain system, agent mode of supply is much appreciable. Market played a significant role in the commodity transection in the study area. To meet the sustainable demands of the people India and Terai district support is ongoing in the supply system. The overall productions statistics concluded as Paddy is the most useable crops and had a great significance in the consumption levels. Farm gate income and other income probability signifies that the role of commodity is vital in the National economy in a positive way. Buyers purchase patterns is normal in most of the time whereas during crisis it increased during limited market functioning.

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**Social Support Networks and Faculty Motivation: Insights from
Tribhuvan University**

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Abstract

Study examines the topic of "Social Support Networks and faculty Motivation." The research aims to shed light on the significant factors influencing teachers' motivation within the context of Tribhuvan University. The study employed a quantitative research design, collecting data from a sample of teaching Faculty within the university. The study utilizes regression analysis to show the impact of four variables on the motivation levels of teaching faculty. SPSS 26 was used to analyze the data. The study revealed that family support and faculty-parent collaboration have a strong positive impact on faculty motivation. On the other hand, faculty -community relations and social recognition of faculty had less significant effects. These findings emphasize the importance of family encouragement and partnerships between faculty and parents in boosting faculty motivation. The study suggests that focusing on family support networks and improving teacher- parent cooperation can be effective ways to enhance faculty motivation in Tribhuvan University. Novelty: This research provides a new perspective i.e. Social Recognition, Faculty Community Relation, Faculty Parent Relation, and Family Support by studying the factors that influence faculty motivation specifically at Tribhuvan University.

Keywords: Community, Faculty, Family, Parents, Recognition, Relation, Social

Introduction

William James was an important contributor to early research into motivation, and he is often referred to as the father of psychology in the United States (Ferreri, 2006). [James theorized](#) that behavior was driven by a number of instincts (Barbalet, 2001). From a biological perspective, an instinct is a species-specific pattern of behavior that is not learned. There was, however, considerable controversy among James and his contemporaries over the exact definition of instinct. James proposed several dozen special human instincts, but many of his contemporaries had their own lists that differed. A mother's protection of her baby, the urge to lick sugar, and hunting prey were among the human behaviors proposed as true instincts during James's era. This view that human behavior is driven by instincts received a fair amount of criticism because of the undeniable role of learning in shaping all sorts of human behavior (Bandhu, Mohan, Nittala, Jadhav, Bhadauria, & Saxena, 2024). In fact, as early as the 1900s, some instinctive behaviors were experimentally demonstrated to result from associative learning (Press Books, 2024).

In this approach, understanding the intricate nature of teacher motivation has become essential. Professors play an important role in establishing the academic landscape, and their motivation has a substantial impact on their success in the classroom (Liu, et al., 2023). While intrinsic variables such as personal satisfaction and professional fulfillment assist teachers stay motivated, socio-cultural aspects, particularly social support networks, must not be disregarded (kumari & Kumar, 2023).

Family support is essential for developing faculty motivation. The family is a significant source of emotional support and encouragement for teachers, boosting their confidence and resilience in the face of professional problems (Roy & Giraldo-García, 2018). Furthermore, family relationships have a substantial impact on an individual's feeling of purpose and dedication to the teaching profession. Understanding the relationship between family dynamics and teacher motivation provides vital insights into the socio-cultural fabric that influences educational practices (Cuervo, Murrieta, Amezaga, & Acuña, 2014).

Faculty-parent relations are another important aspect of social support networks. Interaction between faculty and parents promotes a symbiotic atmosphere conducive to student success. Furthermore, favorable encounters with parents not only validate faculty efforts, but also create a sense of professional efficacy and purpose. Exploring the intricate nature of faculty-parent relationships reveals the profound interdependence of the home and school contexts, emphasizing their joint impact on faculty motivation (Shoukat, Kiran, & Zia, 2023).

Faculty-community relationships play an important role in shaping faculty motivation. Engaging with the larger community develops a sense of belonging and interconnectedness, which increases faculty intrinsic drive to make significant contributions to societal progress. Community support not only confirms faculty positions as change agents, but also strengthens their sense of professional identity and purpose. Investigating the dynamics of faculty- community ties reveals the reciprocal nature of social interactions and their impact on faculty motivation (O'Meara, 2008).

Social recognition of teaching quality emerges as an influence for increased faculty motivation. Recognition and gratitude for teachers' contributions to the social the world are powerful motivators,

NPRC Journal of Multidisciplinary Research

Vol. 1, No. 1, June 2024. Pages: 37-46

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validating their professional endeavors and creating a feeling of pride in their job (Khanal & Phyak, 2021). Furthermore, social acknowledgment strengthens the intrinsic value of teaching by creating a desire for constant development and excellence. Examining the intricate details of social recognition reveals broader societal attitudes toward the teaching profession and their consequences for faculty motivation.

Considering above background, this research aims to explore how social support networks impact teacher motivation at Tribhuvan University. By examining factors such as family support, teacher-parent relationships, community interactions, and social recognition, the study seeks to offer insights for educational stakeholders. Understanding these dynamics can help create a supportive environment that enables teachers to thrive in their profession.

Problem Statement

Faculty motivation is a major determinant of student's performance in national examinations. Gullatt and Bennet (1995) argued that the need for motivated faculty is reaching crisis proportions in today's technological society undergoing fundamental changes. They add that a motivated and dedicated staff is considered as a cornerstone for the effectiveness of a school in facing the various challenges and problems posed to it. It is therefore important to investigate the factors affecting teacher motivation in order to revert the situation. The lack of motivation is perceived to be determined by different factors such as work environment and the rewards for teachers. Lack of motivation among faculty is believed to have affected the performance of students in secondary schools in Kenya including those in Thika West District. Lack of motivation among teachers has been manifested in teacher unwillingness to participate in school activities, poor attendance, unexpected absence, late coming, lack of additional training, uncreative and non-stimulating teaching, lack of interest in meetings, unhelpful attitudes when assistance is needed, occurrence of hold-ups because deadlines aren't kept, resistance to contributing more than what is required of them and development of arguments between colleagues. Performance of a given school depends entirely on the teacher's effort and if that a given teacher is unhappy with his/her job, he/she will not put emphasis into his/her teaching. Rodgers, Jenkinson and Chapman (1990) found that over a sustained period of time, the loss of experienced teachers hurts the quality of instruction and drives up the costs of recruiting and training new faculty.

Research Question

What is the impact of social support networks, including family support, teacher-parent relations, teacher-community interactions, and social recognition of teaching, on faculty motivation?

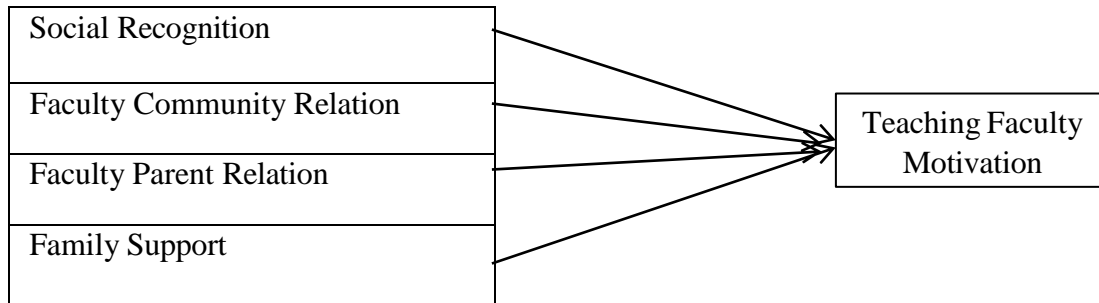
Objectives

To identify the impact of Social Support Networks on Faculty Motivation

Theoretical framework

Independent Variables

Dependent Variables



Source: Belanger & Patrick (2018)

Research Methods

In this study the researcher used descriptive research design, and survey research design. Study is quantitative in nature with the Population of the study is College affiliated by TU in Kathmandu district. Sample of the study is Padmakanya Campus, Shankar Dev campus, NATHM College. Following formula for the sample size,

$$n = N * X / (X + N - 1),$$

where,

$$X = Z_{\alpha/2}^2 * p * (1-p) / MOE^2,$$

$Z_{\alpha/2}$ is the critical value of the Normal distribution at $\alpha/2$ (for a confidence level of 98%, α is 0.05 and the critical value is 2.33), MOE is the margin of error: 4, p is the sample proportion: 50, and N is the population size: 436 (Daniel, 1999). Result is 288 and 12 was add to cover the non- response error and the final sample was 300. Data are collected through the distribution of structured questionnaire and the 300 questionnaire are distributed to the respondents. Data is analyzed with using SPSS software version 26 and individual and multiple regression analysis is done. Data are analyzed with using Descriptive and inferential statistics. Consent was taken to maintain ethical consideration.

Findings

Descriptive Analysis

The Descriptive Statistics table provides insights into four variables related to social networking: family support, faculty-parent relation, faculty-community relation, and social recognition of teaching.

Table 1 Descriptive Statistics

S.No	Statement	Not motivating	Motivating	Highly motivating
1	Family support motivates in teaching	80	95	125
2	Faculty parent relation motivates in teaching	95	105	100
3	Faculty community relation motivates me.	115	120	65
4	Social recognition of teaching motivates me	180	80	40

Field Survey

Most of the faculties are motivated with family support because only 26.66% feels no difference from the family support. Most of the faculties are motivated with faculty parent relation because only 31.67% feels no difference. Most of the faculties are motivated with faculty community relation because only 38.33% feels no difference. Most of the faculties are not motivated with social cognition because only 60 % feels there is no social recognition in teaching.

Model Summary

The model summary is a critical starting point for understanding the relationship between the variables that are being studied. It provides a clear summary of the regression model's performance, showing how well the predictor variables account for the variability in the outcome variable.

Table2 Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.678 ^a	.457	.455	.47729

Field Survey

The model summary shows that the regression model ($R^2 = 0.457$) explains a substantial proportion

of the variation in the result variable, meaning that the predictor variables in the model account for about 45.7% of the variability in the outcome variable.

ANOVA

In regression analysis, ANOVA (Analysis of Variance) is used to determine the regression model's overall significance. It determines if the regression model as a whole explains a statistically significant amount of variation in the dependent variable when compared to a model without predictors.

Table 3 ANOVA

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	77.693	4	77.673	338.479	.000 ^b
Residual	95.253	295	.223		

Field Survey

The results of the ANOVA show a substantial significance relationship between the predictor and outcome variables. A regression model explaining 77.693 units of variation produced an F- value (F = 338.479, p <.001) that is statistically significant.

Regression

The regression coefficient table (B) shows the coefficients, standard errors, and significance levels (p-values) for each predictor variable in the regression model. It reveals the strength and direction of the link between each predictor variable and the outcome variable (faculty motivation).

Table 4 Regression

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.970	.097		10.026	.000

NPRC Journal of Multidisciplinary Research

Vol. 1, No. 1, June 2024. Pages: 37-46

ISSN:3059-9148 (Online)

Family support motivates to teach effectively.	.215	.039	.246	2.983	.003
Faculty parent co-operation motivates me.	.270	.046	.332	3.695	.000
Faculty community relation motivates me.	-.073	.057	-.121	-1.276	.203
Social cognition of teachers motivates me.	-.111	.059	-.183	-1.885	.060
Dependent Variable: Faculty Motivation					

Field Survey

Family support on faculty motivation: The coefficient is 0.215, which suggests that for a one-unit increase in family support, teacher motivation increases by 0.215 units, holding all other variables constant. The p-value is 0.003, indicating that family support is statistically significant in predicting faculty motivation at the 0.05 significance level.

Faculty parent co-operation on faculty motivation: The coefficient is 0.270, indicating that faculty-parent cooperation has a stronger positive effect on faculty motivation compared to family support. The p-value is less than 0.001, suggesting statistical significance.

Faculty community relation on faculty motivation: The coefficient is -0.073, which suggests a negative relationship between faculty-community relation and faculty motivation. However, the p-value (0.203) is greater than 0.05, indicating that this variable is not statistically significant in predicting faculty motivation at the 0.05 significance level.

Social cognition of teachers: The coefficient is -0.111, suggesting a negative relationship between social cognition of teachers and faculty motivation. The p-value is 0.060, which is marginally above the typical significance level of 0.05, indicating a borderline significance.

Family support and faculty-parent cooperation appear to have significant positive effects on faculty motivation, while faculty-community relation and social cognition of faculty have weaker or non-significant effects.

Discussion

Family support and faculty-parent cooperation were found to be key factors positively influencing faculty motivation. Family support, in particular, showed a strong positive relationship with motivation levels, emphasizing the importance of familial encouragement in enhancing faculty commitment. Similarly, faculty-parent cooperation was identified as a significant determinant of faculty motivation, emphasizing the value of collaborative partnerships in creating a supportive educational environment. Effective communication and collaboration between faculty and parents can enhance motivation and student outcomes.

NPRC Journal of Multidisciplinary Research

Vol. 1, No. 1, June 2024. Pages: 37-46

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To motivate teachers, college management can consider implementing the following recommendations:

Create a positive work environment: The college management can foster a positive work environment that is supportive and encourages open communication. This can be achieved through regular meetings, providing opportunities for feedback, and recognizing and appreciating teachers' efforts.

Offer professional development opportunities: Providing opportunities for professional development can help teachers improve their skills, knowledge, and teaching methods. This can lead to a greater sense of job satisfaction and motivation among teachers.

Provide fair and consistent evaluation: Fair and consistent evaluation systems can motivate teachers to work harder and strive for excellence. This includes regular feedback, evaluations that are based on clear criteria and evaluations that are conducted by qualified individuals.

Conclusion

The regression analysis conducted aimed to explore the factors influencing teacher motivation based on four independent variables: Family support, Faculty-Parent Cooperation, Faculty - Community Relation, and Social Cognition of Faculty. The analysis yielded insights into the significance and directionality of these factors in relation to teacher motivation. Among the independent variables, Family Support and Faculty -Parent Cooperation emerged as significant predictors of Faculty motivation. The positive coefficients associated with these variables indicate that an increase in family support and Faculty -parent cooperation is associated with higher levels of teacher motivation. These findings underscore the importance of a supportive family environment and collaborative relationships between Faculty and parents in fostering Faculty motivation. Conversely, the analysis revealed non-significant or marginal effects for Faculty -Community Relation and Social Cognition of Faculty on teacher motivation. While the coefficients for these variables suggested potential negative associations with Faculty motivation, the p-values indicated that these relationships were not statistically significant. It is essential to interpret these results cautiously, considering potential contextual factors that may influence Faculty - community relations and perceptions of social cognition among Faculty.

These findings have implications for educational policymakers, administrators, and stakeholders invested in enhancing Faculty motivation and, consequently, Faculty effectiveness and student outcomes. Strategies aimed at promoting family involvement in education and facilitating positive interactions between Faculty and parents may contribute to fostering a motivating environment for educators. Additionally, efforts to strengthen community support and promote positive perceptions of Faculty professionalism could further support Faculty motivation and job satisfaction. It is important to acknowledge the limitations of the study, including the relatively small sample size and potential confounding variables not accounted for in the analysis. Future research could benefit from a larger and more diverse sample, as well as the inclusion of additional factors influencing teacher motivation, such as school leadership, workload, and professional development opportunities. The findings of this regression analysis underscore the multifaceted nature of Faculty motivation and

NPRC Journal of Multidisciplinary Research

Vol. 1, No. 1, June 2024. Pages: 37-46

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highlight the significance of familial support and collaborative relationships in promoting a motivating environment for educators. By understanding and addressing the factors influencing Faculty motivation, stakeholders can contribute to creating supportive and empowering learning environments conducive to teacher well-being and student success.

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Sustainability of Water Supply Projects

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Abstract

Sustainability is one of the major issues for Water Supply and Sanitation activities/ projects. The project should have the measuring tools for the sustainable part. Water supply is one of the basic needs for human beings with all living things may come first air then water or soil in the universe to sustain. Sustainability indicators of water supply projects was determined by three major dimensions (i) technical, (ii) Socio-environmental, and (iii) Institutional [15]. Other aspects, functionality has divided with requirements, actions, and results. Sustainability is the combination of functionality index and sustainability dimensions on a fifty-fifty percent shearing base. The research has developed sustainability tools on the basis of available literatures and practical experiences. The tools have developed. The project study has to take consideration for the sustainability from the pre-feasibility study, feasibility, detail study.

Keywords: Water supply, study, operation and maintenance, sustainability, functionality

Introduction

Sustainability is required in each and every step of the activities. Sustainability is one of the major issues for Water Supply and Sanitation Projects (WSSP). One has to take consideration for the sustainability from the pre-feasibility study, feasibility, detail project report (DPR) of the study, construction period, and operation and maintenance phase. The study team for any construction must think about the sustainable part from the very beginning to the life of the project. There is always a problem finding the measuring tools for this issue in water supply projects even though the word sustainability is socio technical. Any project should have the measuring tools for the sustainable part. Water supply is one of the basic needs for human beings with all living things may come first air then water or soil in the universe to survive.

Water is one of the fundamental needs to keep the body alive, because the body needs nutrients and water to work properly. However, billions of people in the world still lack access to safe drinking water and sanitation. According to sustainable goal report 2021, 2 billion (26%) people lack safely managed drinking water, 3.6 billion people lack safely managed sanitation, and 2.3 billion people lack basic hygiene. 129 countries are still not on track to have sustainably managed water resources by 2030 [1].

In this context the research paper has developed the sustainable measuring tools for the completed or substantial completed water supply project.

1. Literature Review and Research Methods

Mukharjee et. al (2003) described sustainability based on the publication of WSP & IRC (2003) as the satisfactory functioning and effective use of services, and equity for men and women, rich and poor everyone having equal access to benefits from projects. Another publication of IRC by Schouten et.al., (2003) included as a part of sustainability that a statement, a system that reliable sustainability met the needs of 80 % of the population while leaving the poorest 20 % unserved cannot be counted a success [2]. The incorporation of a measure of social equity in the definition of sustainability.

Three Pillars of Sustainability

Since 1980s, when three pillars as (i) economic, (ii) social, and (iii) environmental of sustainability widely popularized in business, government agencies, and other organizations, applied in practice [3].

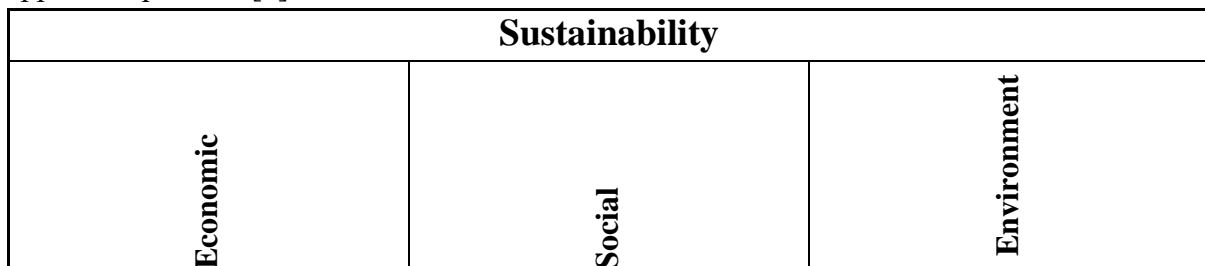


Figure 1: Three Pillars of Sustainability

Source: Moore, 2017

UNESCO Sustainability

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) has played a key role in the development of the United Nations' 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs. It has adopted four pillars (i) Social equity, (ii) Economic development, (iii) Environmental protection, and (iv) Cultural/Human sustainability [4].

UN Sustainable Development Goal

Development agenda of Sustainable Development Goal (SDG6) envisions universal sustainable and equitable access to safe drinking water, sanitation and hygiene and elimination of open defecation by 2030 A.D. The targets of SDG6 for 2030 are [1]:

Target 6.1: By 2030 A.D., achieve universal and equitable access to safe and affordable drinking water for all.

Target 6.2: By 2030 A.D., achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.

Target 6.3: By 2030 A.D., improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.

Target 6.4: By 2030 A.D., substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

Target 6.5: By 2030 A.D., implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.

Target 6.6: By 2030 A.D., protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers, and lakes.

Target 6.A: By 2030 A.D., expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programs, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies.

Target 6.B: Support and strengthen the participation of local communities in improving water and sanitation management.

Water Supply Sustainability in Global context

The European Union, America and Africa has discussed on water quality concern more than other issues like sustainability though in western countries there is no problems experienced of uncertainty.

The Dutch Drinking Water Decree outlines the legal requirements for drinking water quality. Limits on the concentrations of lead (10 micrograms per liter) and mercury (1 microgram per liter) in drinking water are among these regulations. The European Drinking Water Directive is the foundation for these standards. The evaluation's findings show that the Drinking Water Directive is a crucial piece of legislation that protects the quality of drinking water in European member states [5].

The Drinking Water Directive (EU 2020/2184), generally known as the Drinking Water Directive, has begun to be implemented in Finland. Making sure there is safe drinking water is the directive's main goal. This will be accomplished by looking at the drinking water quality standards established through risk management. The entire water production and distribution system, from raw water to tap water delivered to customers, must be considered throughout the risk assessment process. The World Health Organization's recommendations are typically revised together with the quality recommendations for drinking water at Finland [5].

Primary and secondary drinking water regulations exist in the USA. The National Primary Drinking Water Regulations (NPDWR) are primary criteria and treatment methods that are legally enforceable for public water systems. Toxin levels in drinking water are reduced by primary standards and treatment methods, protecting public health. The National Primary Drinking Water Regulations (NPDWRs), developed by the EPA, define obligatory water quality limits for pollutants in drinking water [6].

Sustainability context in Nepal

The sustainability of water supply has evaluated in the context of water quality, quantity required by the users, and consistency of water supply service to the consumers have reviewed from the article published in Wash journal in 2023 [7]. The water quantity has been estimated that the urban water supply needs 100 liters to 120 liters that the project usually decides. Consistency has not been fixed yet but there are 24 hours in 360 days also found morning and evening service with enough quantity. Alternately, the supply water available whenever the consumers require is the consistency of supply. Normally, it depends on reasonably earlier repair in major and minor leakage in the system.

Government of Nepal (GoN) was committed for the provision of basic level water supply and sanitation facilities to all citizens by 2017. Water and sanitation are recognized as fundamental human rights [8].

Water Quality context in Nepal

Initially, GoN had adopted World Health Organization (WHO) standard for drinking water purpose but limited in theory only. It could not be made effective. After this effort, it had developed water quality standard in 2005, it stated that the existing water supplies not meeting National Drinking Water Quality Standards (NDWQS) will be improved in phased manner with appropriate treatment measures.

The Government of Nepal (GoN) has developed and made it mandatory to comply with its provisions in all new water supply systems and has triggered a water quality improvement in urban and rural water supplies, in 2022, GoN updated the National Drinking Water Quality Standards. The updated version has two tables Table 'Ka' and Table 'Kha'. The parameters whose test is compulsory listed in table 'Ka' however, some other parameters are added in the Table 'Kha' according to risk and necessity of parameters for the test [9].

Salyankot Water Supply Project was studied on post-earthquake scenario during earthquake period 2015 by Mr. Shah with the dimensions as i) Technical, ii) Socio-environmental, iii) Institutional, and iv) Cost Recovery with corresponding core factors contributing for sustainability, these dimensions were identified [10].

Mangardh Water Supply Scheme was evaluated the water supply coverage aspect. The study was overall performance; technical performance, financial performance (tariff collection), and institutional performance (functionality index) with implementation status on the base of water safety plan (WSP) referring to the risk factor by Joshi et.al in 2020 [11].

Functionality

Performance is the attainment or fulfilment or functionality in the context of any development action. It also shows the sustainability part of the development project or action [12].

Institutional performance was evaluated on Dhankuta Water Supply Project by A.K. Mishra using water safety plan developed by DWSS/NMIP, 2014. The indicators were (i) WUSC registration, (ii) Own staff for maintenance, (iii) O & M fund, (iv) WUSC meetings, (v) Efficient water tariff collection, (vi) Records keeping, (vii) Spare tools & fittings, (viii)

Implementation of water safety plan, (ix) Water supply service reliability, and (x) Accessibility with 100 unit of marks in Likert scale measurement [13].

Er. Ajita Devkota studied Anbukhairesni Water Supply and Sanitation Project in 2023 and found the performance which was analyzed based on the quality of water supply, reliability, and sufficiency, in which quality of water supply measured in accordance with the National Drinking Water Quality Standards [14].

Research Methods

Sustainability of water supply and sanitation projects has been reviewed on the past studies. The projects/ schemes have been tried to re-evaluate with the available tools. The practical experiences have fitted in the tools and further improved in detail so that there could be eased to evaluate without biasness.

The developed tools have further tested and found reliable to measure sustainable using Likert scale experience outcome from more than fifty water supply projects in Nepal. The findings have been discussed hereunder.

The developed tools have chances of 10 per cent bias or 90 per cent level in unbiased. It is improved on the previous versions. Furthermore, this improved tool is easy to use for the water supply and sanitation projects.

Sustainability Dimensions

Sustainability Dimensions are the highest-level monitoring indicators adopted by WaterAid in Nepal. For water supply and sanitation projects, four monitoring dimensions are used (i) technical, (ii) socio-environmental, (iii) financial, and (iv) institutional. The dimension is significantly governed by many factors and subfactors. Principles of multi-criteria approaches, each set of criteria is rated depending upon its potential contribution or its significance in making the case sustainable. The weights given to dimensions, factors and sub-factors were determined through participatory methods involving sector professionals and field workers [15].

Conceptual Framework

Sustainability indicators of water supply projects was determined by three major dimensions (i) technical, (ii) Socio-environmental, and (iii) Institutional [15]. Next, functionality has divided with requirements, actions, and results. Sustainability is the combination of functionality index and sustainability dimensions.

The research design has been conceptualized as sustainability has two pillars (i) Functionality index, and (ii) Sustainability indicators with sub-indication as figured below.

Sustainability of the Projects/Actions					
Functionality			Sustainability Index		
Requirements	Actions	Results	Technical	Socio-environmental	Institutional
WUSC Registered, WUSC meetings, and Record keeping	Own Staff, O& M Fund, and Tariff Collection	Tools & Fittings, Water Safety Plan, Reliability, and Accessibility	Verification of QARQ (Quantity, Accessibility, Reliability, and Quality) level and physical status of the system	Health benefits (including water borne diseases) Time save, Environmental benefits, and GESI aspects	Operation and functioning of Users Committee, Skilled Technicians, O & M practice, and Financial aspects (O & M cost, Institutional support, Capital cost recovery/upgrading the system)

Figure 2: Conceptual Framework of Research Sustainability

Source: Author, 2024

2. Results and Discussions

Functionality

Functionality index for Water Supply and Sanitation Projects (WSSP).

Table 1: Functionality index table

Indicator	Sub-	Weightage	Not Serviceable	Up to 20%	20%-50%	50%-80%	80%-100%
			Very Bad	Bad	Satisfactory	Good	Very Good
		0-5	1	2	3	4	5
Requi	WSU		Not Registered	Registered but not	Audited but not renewed	Renewed & GB till 2 yrs. back	Renewed & GB conducted

NPRC Journal of Multidisciplinary Research

Vol. 1, No. 1, June 2024. Pages: 47-58

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			Renewed & Audited				
		Yes (5), No (0)	1	2	3	4	5
	WSUC Meetings		No meetings or once in a year meeting	Meeting in the desires of Chairperson	Regular less than tri-monthly meetings	Regular tri-monthly meetings	Regular monthly meetings
		Regular Yes (5), No (0)	1	2	3	4	5
	Record keeping		Rarely record keeping of connection & Tariff	Record keeping of connection & Tariff in random system	Poorly records keepings, records are available but audited till before last year	Meetings, Water connection and tariff records keeping till last months	WUSC meetings, Staff meetings, Water connection and tariff updated records keeping
		Proper (5), No (0)	1	2	3	4	5
Action (A)	Having own staff with		No Staff	Poorly Staff hired with in daily wise basis	Poorly Staff hired with in monthly basis	Poorly managed Enough Staff	Sufficient staff with Job description
		Yes (5), No (0)	1	2	3	4	5
	O & M Fund		No fund	Poorly allocated fund for O & M	Fund less than 3% of the Construction Cost	Fund about 5% of the Construction Cost	Sufficient fund more than 5% of the Construction Cost

NPRC Journal of Multidisciplinary Research

Vol. 1, No. 1, June 2024. Pages: 47-58

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Results (R)	Efficient water tariff	Sufficient (5), No (0)	1	2	3	4	5
		Yes (5), No (0)	1	2	3	4	5
	Tools and fittings		No tariff collection system	Poorly managed tariff collection system up to 40% of the billings	Tariffs collection 40-80%	Tariffs collection 80-95%	Tariffs collection 95% or more
		Sufficient (5), No (0)	1	2	3	4	5
	Water		No tools & spare parts	Tools are available but no spare parts	Poorly manage tools & spare parts	Good managed tools & spare parts	Well managed tools & spare parts stock for 3 months
		Functional (5), Nonfunctional (0)	1	2	3	4	5
Results (R)	Reliability (360)		Rarely Water Supply	Poorly Water Supply	Safe Water Supply in 4hrs (2mor +2eve)/360	Safe Water Supply in 8hrs (4mor +4eve)/360	Safe Water Supply in 24/360
		Yes (5), Six month (0)	1	2	3	4	5
	Accessibility of supply		Rarely Water Supply time to collect more than 30 min.	Poorly Water Accessible on the court yards with public tapstands within 30 min.	Manageable Water Accessible on the court yards	Sufficient Water Accessible on the court yards	Sufficient Water Accessible on the top of 3 story building
		15 minutes (5), More than 30 minutes (0)	1	2	3	4	5

The calculation score of functionalities will be higher to the lower based on risk factors as the indicators of the index.

The calculation of sustainability will be in weighted 50% for functionality and 50% for Sustainability dimension for the whole activities or project considering risk factors.

Sustainability Dimensions

Sustainability index or dimension of Water Supply and Sanitation Projects (WSSP) has been modified in the three-pillar system as (i) Technical, (ii) Socio-environmental, and (iii) Institutional as stated earlier.

Table 2: Sustainability Dimension Table

Sustainability Dimensions	Sub-Dimensions	Weightage	V. Bad	Bad	Satisfactory	Good	Very Good	
			1	2	3	4	5	
Technical	Quantity of water	1-5	1	2	3	4	5	
		%	30-	40+	50+	80+	90+	
	Physical Quality of water	1-5	1	2	3	4	5	
	Nos. 5 compulsory(C) +1=6 of parameter within limit			2C-	2C+	3C+	5C	6/6
	Chemical Quality of water	1-5	1	2	3	4	5	
	Nos. 12 compulsory(C) +1=13 of parameter within limit			5-	5+	7+	12	13/13
	Biological Quality of water	1-5	1	2	3	4	5	
	Microbial parameter % samples within limit			50-	50+	80	95	100
	Reliability of water supply	1-5	1	2	3	4	5	
	As per risks							
	Physical status/ Structures of the system	1-5	1	2	3	4	5	
	As per risks							

Institutional	Timely General Assembly	1-5	1	2	3	4	5
	As per risks						
	Water Tariff collection System	1-5	1	2	3	4	5
	Active involvement of WUSC team	1-5	1	2	3	4	5
	Record keeping Mechanism	1-5	1	2	3	4	5
	Community Technicians for O&M	1-5	1	2	3	4	5
Socio-environmental	Gender Equity and Social Inclusion status in team	1-5	1	2	3	4	5
	<u>Social Security Risk</u> for woman	1-5	1	2	3	4	5
	<u>Environmental Health</u> status/water borne diseases after the project	1-5	1	2	3	4	5
	Managing Operation and Maintenance fund	1-5	1	2	3	4	5
	Tariff collection	1-5	1	2	3	4	5
	Collection in %		Less than 20	20-40	40-60	60-80	80-100
	<u>Economy Availability</u> of fund from local bodies and others	1-5	1	2	3	4	5

	organizatio n						
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Source: Author, 2024

Risks will be categorized by the researcher as the sustainability sub-dimensions of the system. The score of the risks will be prejudiced as the higher to the lower.

Conclusion and Recommendation

The project sustainability will be adopted in weighted 50% for functionality index and 50% for Sustainability dimension for the whole activities or project considering risk factors. The criteria has been fixed as per the experience on water supply and sanitation projects with reviewing the available literature.

Sustainability is one of the serious issues for Water Supply and Sanitation Projects (WSSP). One has to take consideration for the sustainability from the pre-feasibility study, feasibility, detail study. Further research and criteria could be reviewed for the project, as per the time advanced and complexity come to the situation.

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Right to Employment Protection of the Adjunct and Internal Full Time Contract Faculties in the Tribhuvan University

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Abstract

This study explores at the legal rules for recruitment part-time and full-time contract teachers at Tribhuvan University (T.U.) in Nepal. It focuses on how they are recruitment, selection, and how their rights are protected. The study uses legal documents like the T.U. Act and court cases from other countries to examine these issues. The findings show how T.U. uses part-time teachers, how it hires them, and how decisions made by the administration can affect them. The study also highlights international court cases to see what they say about following proper procedures, meeting contract obligations, and protecting the rights of teachers. Based on this, the study suggests ways to improve the situation, i.e., considering the needs of teachers, following labor laws, and having clear rules about academic freedom and job security. It also suggests making contracts clearer and giving teachers more rights, such as knowing more about their jobs and being able to bargain together as a group.

Keywords: Adjunct, Employment, Right, Tribhuvan, University

Introduction

Adjunct faculties are the faculties who are apart from the University and employed for part time employment or services as per T.U Faculty, Staff Service rule 2050 of sub rule 2(V5) and provision of appointment as per rule 10(1)(1a),(2),(3) and(4) before the additional class management directives-2077 which is effective from 2077 Bhadra 1 . The full time contract faculties are those faculties who are appointed as per the decision of the cabinet and apart from it appointed as per the decision of the T.U. executive council and the term faculty is defined in the T.U Act,2049 chapter 1, clause 2(k). Tribhuvan University and its Constituent Campuses have made use of part-time faculty for decades as per the T.U Faculty Staff service rule 2050 of rule 10 of sub rule 2 and 4 and delegated authority by the central office(The decision made by the executive council, decision no 1810 on the date 2074-12-4 to appoint the part-time faculty by the constituent campuses as per submitted report constituted by the executive

NPRC Journal of Multidisciplinary Research

Vol. 1, No. 1, June 2024. Pages: 59-66

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council and on the date 2075-1-31 and decision no 1886) through which concerned constituent campuses can appoint part time faculty after allocating the classes to the full time faculty on the basis of work load. The concerned campuses used to deploy the faculty by mentioning their name, course subject and the teaching shift in the routine only without providing the appointment letters. Before the above decision of the executive council, the concerned campuses used to deploy the part time faculty without prior approval of the T.U central office (executive council) and without providing the appointment and reappointment letters.

However, both their numbers and the work they do are in process of drastic change. Executive council issued the additional class management directives in 2077 and enforced in all the campuses from 2077, Bhadra 1. As per this directive the all constituent has to appoint the Part time faculty as per the procedure mentioned in the additional class management directive-2077 and has to take the prior approval before deploying them in the class, this process of deploying caused the new opportunities for employment right.

The major reason to appoint the internal full time contract as per above stated directives and decision no 1293 of the executive council is due to their high qualification, best working efficiency, experience and ability to perform duties than the permanent faculties, low overhead cost of employing, teaching the courses at low rate than that of a full time permanent faculty, course fluctuation, increase in enrollment, expand in course offering, less recruitment and selection cost compared to service commission and service commission does not announce the recruitment and selection process for many years, no uniformity in the time schedule or calendar based recruitment and selection of the faculty and the procedure adopted by the service commission is not as per compliance provisioned in the faculty appointment recommendation bylaws-2075 and service commission do not announce the required number of exact vacant position.

As per the employment rights conferred by the constitution of Nepal 2072 of article 33 and 34, civil code, 2074 of clause 20, labor Act 2074, clause 180(3) ([Law Commission, 2017](#)) and the legal doctrine and international principal propounded by the courts, the association of the part time professors, part time faculties of the inside and outside the Kathmandu valley faculties collective bargaining lead towards the agreement with the central office and the committee constituted by Ministry of Education and part time professor representative in order to solve the part time professor problem on the date 2074-06-27 and the decision of the cabinet on 2074-8-8, lead towards the development or way out for the management of employment rights of the part time faculty by the executive council to manage part time faculty in the form of full time contract on the basis of directives and decision made by the executive council on 2077 Magh 2 and on the date 2078-11-20 of the decision no 1293 to recruit and recommend for appointment through bearing from the internal financial source of T.U. constituent campuses, full work load, requirement, reasonableness, seniority, continuity and reasonableness through incorporating the internal recruitment, selection and appointment procedure by the concerned campuses. The internal source of financial payment of 12 month equivalent to the teaching assistant position monthly payment equivalent to Gazetted third class officer of Nepal government decision made by the executive council through making contract as per the

decision held on Magh 2 and as per the format of agreement based on decision no 1369 along with the directed correspondence to follow the circular from central office.

These contract full time faculties somehow have been primarily concerned with the equal pay for equal value of work or with the pay equity of teaching assistant of university with limited benefits with rigid agreement and working conditions provision made by providing appointment letter, workload of 12 credit hour in a year in two semester in Master's degree and 18 credit hour in Bachelor degree, 12 month payment, 15 days leave including causal and festival leave, winter and summer holiday, 15 days holiday in case of absence of emergency work in a fiscal year and public holiday in the contract agreement. The festival allowance or Dashain allowance equivalent to one month payment has been included in the contract agreement, based on the basis of decentralization rule, 2055 of rule 7, sub rule 6 (t) and rule 43 of the faculty, staff service rule 2050 by the concerned campuses. The stated above legal procedure of employment right has maintained relationship with these faculties with the University for further career development and job security but faculty has to gain the right to unionize for their employment right further. These faculties seems to be treated as potential full time Tribhuvan University contract faculties in near future through bearing the financial source from T.U. central office by the decision of the University executive council or through implementation of the decision of the cabinet made on 2074-08-08 of the number 1420 regular contract and finally converted into the permanent faculty through internal open competition from T.U. service commission.

Statement of the problem

Although adjunct faculties are appointed as per stated rule, directive and circular of the executive council but these faculties has been involved in teaching activities long time for many years employment as a part time due to low overhead cost of employing, teaching the courses at very low rate than that of a full time permanent faculty if the class exceeds after allocating the classes for full time faculties. compared to permanent lecturer faculty, not providing additional benefits and allowances, medical and health insurance, gratuity, service commission does not announce the recruitment and selection process for many years, no uniformity and time schedule or calendar based recruitment and selection and the procedure adopted by the service commission is not as per compliance provisioned in the faculty appointment recommendation bylaws-2075 and service commission does not announce the required number of vacant position as vacant in the university. The T.U executive council has not issued the directives not procedure further regarding the job security of the explicit security of the tenure and faculty welfare programme, additional benefit, allowances, provident fund, medical and health insurance that should be included in terms and conditions clearly, further career development policy based decision for the full time contract faculties, has not been involved or exercised for enactment of rule by executive council for internal open competition for approval from T.U senate by the service commission for full time contract faculties.

- i) What are the existing legal provision of the adjunct faculties and full time contract faculties employment right of the TU?

- ii) What are the recruitment and selection provision of the adjunct and full time contract faculties based on additional class management directives and circular of the TU executive council?
- iii) What are the international cases and doctrine in protecting the employment right of the faculties?

Research Objectives

- i) To access the existing legal provision regarding the employment of the adjunct faculty and full time contract faculties of the T.U.
- ii) To highlight the adjunct faculty and full time contract faculties' recruitment and selection provision based on additional class management directives and circular of the T.U.
- iii) To explore the international cases in protecting the employment right of faculties.

Methodology

This research was based on the doctrinal and Analytical research methods. Under the doctrinal methods data is collected through the primary sources like Tribhuvan University Act, 2049, T.U faculty and personnel service rule 2050, T.U decentralization rule, 2055, T.U Executive Council directives decision no. 1293, additional class management directives-2077, executive council decision no 1293 on the date 2078-10-20 and secondary sources of data shall be collected from the circular, books, articles, law journals, magazine, dissertation so on.

Result and Discussion

Existing legal provision regarding the employment of the adjunct faculty and full time contract faculties of the T.U

Tribhuvan University and its Constituent Campuses have made use of part-time faculty for decades as per the T.U Faculty personnel service rule 2050 of rule 10 of sub rule 2 and 4 and delegated authority by the central office(The decision made by the executive council, decision no 1810 on the date 2074-12-4 to appoint the part-time faculty by the constituent campuses as per submitted report constituted by the executive council and on the date 2075-1-31 and decision no 1886) through which concerned constituent campuses can appoint part time faculty after allocating the classes to the full time faculty on the basis of work load. Although there is also the provision of appointment in the internal contract as per decentralization rule 7 of sub rule 6 of part j and k for the employment right but T.U has not implemented it. As per additional class management directives clause 3(a) minimum specified full work load should be allocated for the full time internal contract faculties and mentioned in the contract agreement also has to manage one additional class and campus has to motivate to involve for the full time contract and permanent faculties for additional class if remains as per clause 6(a). There is provision of the appointment in other nature of contract is provisioned on the T.U faculty, personnel service rule 10(1) and 1(a) and appointment of the visiting faculty on the contract as per service rule 11.

Similarly on the date 2074-08-08 as per the decision of the cabinet, it lead towards the development or way out for the management by appointing the part time faculties by the executive council to manage part time faculty in the form of contract but this decision has not been implemented yet due to budget constraint of the government of Nepal that has been postponed now due to political reason. On the basis of decision made by the executive council of the decision no 1293 of the date 2078-11-20 to recruit and appoint the part time faculties into internal full time contract through bearing from the internal financial source of the campus based on full work load, requirement, reasonableness, seniority, continuity and reasonableness through incorporating the internal recruitment, selection and appointment procedure by the concerned campuses.

As per the decision held on Magh 2 of the executive council and as per the format of agreement based on decision no 1369 along with the directed correspondence to follow the circular of the central office for the recruitment and selection in order to recommend for appointment before T.U executive council.

There is also the legal provision for appointing the existing internal contract faculties based on the decision made by the cabinet on the date 2074-08-08 of the number 1420 regular contract and finally converted into the permanent faculty through internal open competition from T.U. service commission through procedure.

Adjunct faculty and full time contract faculties' recruitment and selection provision

As per the decision no 1293 of clause 2 a,b,c and d,clause 5 there is a provision for recruitment and selection of the internal full time contract for those faculties who possess the specified full work load class .The provision for recruitment and selection for adjunct faculties who does not hold or possess the specified full work load and the campus cannot manage the internal source of funding due to the lack of budget source then the such faculties are managed as per additional class management directives-2077 through making course agreement along with the provision of remuneration is provisioned in the clause 4, in the form of course agreement for those who are allocated the class on the basis of additional class management based on the additional class management directives 2077 of the clause 3(d), by adopting the procedure mentioned in the additional class management directives- 2077 clause 4(a) and qualification based on clause 4(b) and clause 7(a),(b),(c) and(d) in the form of course agreement based on schedule 2 of this directives issued by executive council based on T.U Act,2049 clause 14(i) and(j) and faculties, personnel service rule no 126 and direction issued by the executive council on the date 2078-11-20 to all dean office, campus and department to get approval for the campus regarding the number and subject for the recruitment and selection process and formation of the committee to draft the procedure for recruitment and selection procedure with the terms of service and conditions, qualification and other provision in order to provide the remuneration equivalent to the teaching assistant Gazetted level third class and formation of the selection committee to make recommendation for the appointment before executive council T.U. central office and approval for making the agreement before involved in teaching work through internal competition.

NPRC Journal of Multidisciplinary Research

Vol. 1, No. 1, June 2024. Pages: 59-66

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Cases in protecting the employment right of faculties

In the case of National Collegiate Athlete Ass'n Vs Tarkanian, 488 U.S, 179,191(1988), the court propounded the principle that the due process is the subject of scrutiny based that must be complied when it decides to impose the disciplinary action upon tenured employees or the faculty member of a state university and should not deny from due process or equal protection ([U.S. Supreme Court, 1988](#)).

In the case of Phillips Petroleum Co Vs Shutts, 472 U.S 797, 812(1985), quoting Mullane Vs Central handover Bank & Trust Co 339 U.S. 306,314-15(1950) the decision was that the notice must be the best practicable, reasonably calculated under all circumstances, to appraise interested parties of the pendency of the action and afford them an opportunity to present their objectives ([United States Supreme Court, 1985](#); [U.S. Supreme Court, 1950](#)).

In the case of Lucas vs Chapmam, 430 F.2d 945,947(5th Cir.1970) the court held the decision that A teacher's longtime employment in a continuing relationship through the use of renewals of short-term constructs was sufficient to give him necessary expectancy of reemployment that constituted a protectable interest ([United States Courts of Appeals, 1970](#)).

In the case of Perry Vs Sindermann, 408 U.S 693,599(1972), The court held the decision that the constitution does not require opportunity for a hearing before non-renewal of a non-tenured teacher's contract unless he can show that the decision not to rehire him somehow deprived him of an interest in liberty or that he had property interest in continued employment for long time, despite a lack of tenure or a formal contract. De facto tenure exists due to the method of acquiring such tenure through understanding of the institution rather than formal requirement ([U.S. Supreme Court, 1972](#)).

In the case of Ferguson Vs Thomas, 430 F.2d 852 (5th Cir.1070), holding that the denial of re-employment rights of based on plaintiff's classroom remarks was unconstitutional (United States Courts of Appeals, 1970).

In the case of Greene Vs Howard University,412 F.2d1128(D.C Cir1969) In this case a group of faculty members created several disturbances on the University campus, to prevent further disturbances the university sent a letter to the involved faculty members informing that their appointment would not be renewal then faculty members filed suit alleging breach of contract and seeking renewal because they had not received the requisite notice of renewal and required to provide with opportunity of hearing because nonrenewal had predicted on charges of misconduct. The district court decided that they were not entitled to a renewal as a matter of law and university had legal right to dismiss them. Complete discretion in the matter is vested in the university authorities ([U.S. District Court , 1967](#)).

In reversing the lower court the appeal court decided that the qualification of the university power to terminate arise when notice of non-appointment fails to comply with the previously established guidelines. These qualifications cannot be negated by the university disclaimer that it will not be contractually obliged to adhere to the notice provision based on employment regulation and customs.

In the case of Balen Vs Peralta Junior College District, 523 P 2d 629(cal1974), the California supreme court held Balen was a probationary teacher, he was entitled to predetermination notice and hearing because he was denied such notice and hearing. His continuous service

NPRC Journal of Multidisciplinary Research

Vol. 1, No. 1, June 2024. Pages: 59-66

ISSN:3059-9148 (Online)

afforded him a legitimate expectation of employment so he had a property interest in his part time teaching position ([California Supreme/Appellate Courts, 1974](#)).

In the case of Kansas state Agriculture College Vs Mudge, 21 Kan 169(1878), the court awarded damages to a professor dismissed in violation of his employment contract, despite the existence of a contractual clause permitting the board to remove a professor wherever the interests of the college shall require.

Conclusions

No person shall be deprived of personal liberty regarding freedom to engage in any occupation or be engaged in employment except provided by law as per article 17 part (f) constitution of Nepal, article 33 right to employment based on terms and conditions as determined by federal law, article 34 right to proper work practice and right to proper appropriate remuneration, facilities and contribution based social security and right to form trade union, participate in it and organize collective bargaining. regarding labour clause 10 of part (a) and (b) 180 of sub clause 3 and of labour act, 2074 and clause 3 part (a) and (b) of labour regulation, 2074 and civil rights as per clause 20 of sub clause 2 part (e) and (g) of country civil code, 2074. The university or authorized body should protect against nonrenewal and dismissal without cause. Right to give notice with objective reason along with opportunity to be heard and participate in hearing is the fundamental requisite of procedural due process. Substantive due process should be undertaken to protect the denial of certain fundamental rights that may apply to individual faculties. To have property interest for entitlement of reemployment occurs through the statues, contract of a specified term of employment, tenured or non-tenured employees by statutory definition and general institution understanding and continued employment which leads to the

Defacto tenure exists due to the fact of the case although the method of acquiring such tenure may contradict the formal requirement of the institution. Dejure tenure will arise through the recognized procedure for acquiring tenure.

Recommendations

University should seek to understand the aspirations of adjunct and internal full time contract faculties. Adjunct faculties' appointment and remuneration should be followed as per additional class management directives-2077. University should provide notice of the release and an opportunity for grievances to be heard for adjunct faculties. Internal full time contract faculties should be included in not in campus department but in overall communication and participation and believe as integral members of the University. Should follow strictly the article 17, 33, 34 clause 108 of labour act and clause 20 of country civil code, 2074 and the decision of the executive council T.U, it's policy and directives, T.U faculty and staff rule 2050 for terms and condition, remuneration, facilities and allowances.

Standard principles on academic freedom tenure standard should be introduced for internal contract full time faculties based on security of tenure and career development through right and obligation of both individual faculty and university.

NPRC Journal of Multidisciplinary Research

Vol. 1, No. 1, June 2024. Pages: 59-66

ISSN:3059-9148 (Online)

Notice provision for the nonrenewal of the contract based on substantive and procedural rights with objectivity due process, right to confer the terms and conditions of appointment, right to file grievances or appeal negative decision, to have fair hearing opportunity, right to complete the terms of contract and renewal of the contract and right to have collective bargaining, right to form union and participation and right to have appropriate remuneration and facilities a should be defined clearly in the contract or by making directives or introducing policy for internal full time contract.

The customary and academic employment contract would be improved substantially through more comprehensive drafting. Concerned campus executive committee has to send demanding for the prior approval for the extension of renewal of employment of the internal contract on time before the expiry of the tenure granted by the T.U executive council of the approved faculties who appointed as per rule or procedure before T.U central office.

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