



Economics and Business Quarterly Reviews

Shrestha, P., & Salike, Nimesh. (2026). Economic Resilience Among Rural-to-Urban Migrants in Nepal: The Roles of Income Diversity and Perceived Economic Security. *Economics and Business Quarterly Reviews*, 9(3), 98-114.

ISSN 2775-9237

DOI: 10.31014/aior.1992.09.03.730

The online version of this article can be found at:
<https://www.asianinstituteofresearch.org/>

Published by:
The Asian Institute of Research

The *Economics and Business Quarterly Reviews* is an open-access publication. It may be read, copied, and distributed free of charge according to the conditions of the Creative Commons Attribution 4.0 International license.

The Asian Institute of Research *Economics and Business Quarterly Reviews* is a peer-reviewed International Journal. The journal covers scholarly articles in the fields of Economics and Business, which include, but are not limited to, Business Economics (Micro and Macro), Finance, Management, Marketing, Business Law, Entrepreneurship, behavioral and Health Economics, Government Taxation and Regulations, Financial Markets, International Economics, Investment, and Economic Development. As the journal is Open Access, it ensures high visibility and increases citations for all research articles published. The *Economics and Business Quarterly Reviews* aims to facilitate scholarly work on recent theoretical and practical aspects of Economics and Business.



ASIAN INSTITUTE OF RESEARCH
Connecting Scholars Worldwide

Economic Resilience Among Rural-to-Urban Migrants in Nepal: The Roles of Income Diversity and Perceived Economic Security

Piyush Shrestha^{1,2}, Nimesh Salike³

¹ University of Chinese Academy of Social Sciences, China

² Kamana International College, Nepal.

³ Xi'an Jiaotong-Liverpool University, China.

Correspondence: Piyush Shrestha. Email: piyushshrestha2043@gmail.com

ORCID ID: <https://orcid.org/0009-0003-6874-6925>

Abstract

Internal migration is high in Nepal especially, rural-to-urban migration is in noticeable rate. There is limited study conducted studying about how rural-to-urban migrants are sustaining economic stability in the country. This study explores the determinants of economic resilience among rural-to-urban migrants in Nepal, through focusing on the effects of income diversity and perception on economic security. Cross-sectional survey data were used in this study. 500 participants in this survey were selected through purposive, random sampling method from three metropolitan cities (Kathmandu, Lalitpur and Bharatpur). Researcher also created economic resilience index through Principal Component Analysis (PCA). Ordinary Least Squares (OLS) regression models were used to test three core hypotheses. The result of this study shows that income diversity has a strong, positive and statistically positive effect on economic resilience ($\beta = 0.695$, $p < 0.001$). Perception on economic security shows positive, weaker and marginally significant effect on economic resilience ($\beta = 0.124$, $p = 0.013$). Which means perception on economic resilience has its weaker effect for economic resiliency among rural-to-urban migrants. The explanatory power ($R^2 = 0.321$) is 32% which exhibits the modest interaction between income diversity and perception on economic security among rural-to-urban migrants in Nepal. Marital status, educational background and average working hours as control variables reveals as supportive variables which are enhancing economic resilience whereas, female migrants show consistently lower economic resilience making gender disparities at urban labour markets of Nepal. Age and duration of stay in urban area exhibits no real significant effect on economic resilience among rural-to-urban migrants. The overall findings reveals that the rural-to-urban migrants with diverse income sources and positive perception has been playing significant role for enhancing economic resilience in Nepal. The livelihood diversification as a foundational adaptive strategy and gender-sensitive policy interventions support the multiple income means, development of skills and financial inclusion for economic stability among rural-to-urban migrants. The contribution of this study has been believed to be on the migration and livelihood resilience literature in South Asian urban context which had integrated the subjective and objective dimensions of resilience which has been understudied and offers equitable development of migrants and provides practical insights for policy implementation in Nepal.

Keywords: Economic Resilience, Income Diversity, Perception of Economic Security, Internal Migration, Rural-To-Urban Migrants

1. Introduction

Migration is a global phenomenon that influences peoples' livelihoods, driven by the desire for better economic opportunity, more social stability, and improved household well-being. The most significant trend in demographic change in developing countries is rural-to-urban migration. Rural to urban migration is particularly relevant to urbanization occurring globally as well as the structural challenges facing many rural livelihoods related to limited job opportunities, low agricultural productivity, and inadequate basic services (Barker et al., 2023). For migrants, however, resettlement into an urban environment is not a general task. Migrants face many new economic, social, and cultural landscapes; there is also an absence of clarity regarding the informal job market, along with instability in wages and insecurity about job stability, and limited access to social protection (Sinha et al., 2022). As such, the ability of migrants to adapt to urban shocks, or their economic resilience, is an important determinant of long-term migrant integration and overall well-being, but it continues to be under-researched in several low and middle-income countries.

Nepal is an example of this global trend. As a direct result of internal rural-to-urban migration, Nepal is experiencing rapid urbanization; according to the 2021 National Population and Housing Census, more than 66% of the population of Nepal now reside in urban areas, a significant increase from the historical share of the population living in urban areas (National Statistics Office, 2023). This growth in the urban population has occurred due to an unequal distribution of resources, falling rural economy, and concentration of formal jobs and services in metropolitan areas (Bhattarai et al., 2023). While there has been an increased focus in the academic and policy literature on international migration from Nepal, there has been little focus on internal rural to urban migration, particularly regarding how migrants are building their economic resilience in urban environments. Research to date on internal migration in Nepal has largely focused on dynamics and economic condition. Economic resilience of rural to urban migrants is, therefore, a critical but under-studied outcome. Existing studies tend to emphasize the drivers of migration, or the migrants' current economic status, with few studies providing analysis of how migrants experience, cope with, and recover from economic shocks once they have migrated. This is a critical gap, as understanding migrant's economic resilience will become increasingly important as urban migration continues to rise. Such information is vital for the development of policies to support a more inclusive form of urban development for this growing population.

Economic resilience has been defined as the capacity of individuals, households, or communities to absorb, cope with, adapt to, and recover from economic shocks, or to manage many of the types of shocks faced by migrants (e.g., loss of a job; instabilities in income; growing costs of living; Adger, 2000; Briguglio et al., 2009; Cardiff University, 2024). In the case of rural to urban migrants in Nepal, economic resilience includes both objective measures (e.g., having multiple sources of income, savings, and skills) and subjective constructs (e.g., confidence in the stability of the economy and psychological coping; Rose, 2009). While it has been well documented that livelihood diversification (i.e., diversity of income) is a key objective resilience strategy for marginalized populations (Ellis, 2000), the impact of subjective perceptions of economic stability on migrant's economic resilience have been given little attention, mainly with respect to the interaction of subjective and objective livelihood resources. Hence, does an individual's positive perception of the economy enhance the impact of income diversity as a source of resilience, or are migrants' objective resources primarily responsible for building their economic resilience?

The research examines the links between various factors such as sociodemographic status (e.g., gender), household economic conditions (e.g., income level), employment status, and income level with regard to economic resilience. The study helps fill in an empirical gap in Nepali migration research, as most research has focused on migration, rather than on determinants of economic resilience. The second contribution is that it uses both objective (income diversity) and subjective (perceived economic security) dimensions of economic resilience to evaluate the independent and interactive effects of these dimensions. Third, the research identifies the differences between male and female migrants regarding economic resilience and uses this information to inform equitable policymaking for both groups. Through the use of rural-to-urban migrants experiences in Nepal, the research contributes to the larger body of literature on economic resilience in urban environments throughout South Asia, where informal employment and other forms of systemic vulnerability may impact rural-to-urban migrants' livelihoods.

1.1 Research Gap

While rural to urban migration within Nepal is an important part of how communities within this country have developed and transformed their economy, there are very few studies that provide evidence about migrant well-being through urban areas beyond basic analysis of just looking at income of or employment for migrants (Bhattarai et al., 2023). Few studies investigate how migrants build economic resilience, the capacity to withstand and recover from economic shocks or the strategies they use to mitigate urban vulnerability. Global literature highlights income diversity (Posso & Clarke, 2016) and social capital (Olcese et al., 2023) as key resilience drivers, and subjective perceptions as complementary factors (Tutu & Tschakert, 2011), but these insights have not been applied to Nepali internal migrants. Additionally, existing research on migrant resilience in South Asia focuses on international migrants (Sinha et al., 2022) or urban slum dwellers (Nop & Thornton, 2019), with tiny attention to rural-to-urban internal migrants, one of Nepal's fastest-growing demographic groups. This study addresses this gap by empirically testing the effects of income diversity and perceived economic security on migrant economic resilience, and by identifying disparities in resilience across migrant subgroups.

1.2 Research Questions and Objectives of the study

To fulfill the research gap, this study carries three core research questions:

1. Does income diversity contribute positively to the economic resilience of rural-to-urban migrants in Nepal?
2. Do positive subjective perceptions of economic security enhance migrant economic resilience?
3. What is the combined (interactive) effect of income diversity and perceived economic security on migrant economic resilience?

The general objective of the study is to examine the determinants of economic resilience among rural-to-urban migrants in Nepal and propose gender-sensitive, evidence-based policy interventions to strengthen migrant resilience. The specific objectives are to:

1. Measure the effect of income diversity on migrant economic resilience, controlling for sociodemographic and employment factors;
2. Evaluate the relationship between perceived economic security and economic resilience;
3. Test the interactive effect of income diversity and perceived economic security on resilience;
4. Identify sociodemographic and employment-related disparities in economic resilience among migrant subgroups.

2. Data and Methodology

2.1 Study design and area

This study adopts a cross-sectional quantitative research design to empirically examine the determinants of economic resilience among rural-to-urban migrants in Nepal. Cross-sectional design is appropriate for this research as it allows for the systematic measurement of variables (e.g., income diversity, perceived economic security, resilience) at a single point in time, and for the testing of causal relationships through regression analysis (Hair et al., 2019).

Three major metropolitan cities in Nepal's Bagmati Province were purposively selected as study sites: Kathmandu (administrative hub), Lalitpur (cultural hub), and Bharatpur (Terai trade and industrial hub). These cities are the primary destinations for rural-to-urban migrants in Nepal (NSO, 2023), with combined estimated migrant populations of 818,885 (46.4% of their total population; Table 1). They also represent diverse urban contexts from the highly urbanized Kathmandu Valley to the rapidly urbanizing Terai region ensuring the sample captures variation in migrant livelihood experiences. The study focuses on individual-level analysis because economic resilience is conceptualized as a capacity shaped by personal livelihood strategies, subjective perceptions, and individual sociodemographic characteristics (Briguglio et al., 2009).

Table 1: Migration population in three sampled metropolitan cities

Metropolitan Cities	Total Population (2021)	Estimated migrations (internal& International)	Migration Shares
Kathmandu	845,767	422,884	50%
Lalitpur	551,667	248,250	45%
Bharatpur	369,377	147,751	40%
Total	1,766,811	818,885	46.4%

Source: NSO-Nepal (2023)

2.2 Nature and Sources of Data

Data for this study came from primary quantitative data collected using a structured questionnaire due to 500 rural-to-urban migrants who have relocated for the last 6 months in the year 2025. Researcher collected information on all three variables of interest (the outcome measure was economic resilience; independent variables included diversity of income and perceived level of economic security; and control measures included sociodemographic and employment characteristics). The questionnaire was developed such that it included the following components: 1) Closed-ended questions to collect numeric-based values related to demographic and employment variables (e.g., age, gender, number of income sources, number of hours worked); 2) Use of a 5-point Likert-type scale (1 = strongly disagree to 5 = strongly agree) to assess extent of perceived economic security and resilience and; 3) Short, open-ended questions to provide context for some of the quantitative findings (e.g., migrant difficulties encountered living in urban areas).

2.3 Sampling Technique and Sample Size

To select participants for the study the researcher used a mixed sampling strategy of purposive and simple random sampling. First, rural-to-urban migrants were identified in a purposive manner by living in a rural district and having moved to one of three main cities in the study area and; second, 500 randomly selected migrants were selected from this purposive population to obtain a sample with adequate representation of age, gender, and types of employment.

Sample size was calculated according to the Yamane formula (Yamane, 1967) for finite populations (with a population estimate of 818,885) using a 95% confidence level and 5% margin of error. This resulted in a sample size of 384. However, to account for non-response bias and increase statistical power for conducting regression analyses, the sample size was targeted to 500 individual migrant as respondent. The final sample consisted of 185 (37.0%) from Kathmandu, 147 (29.4%) from Lalitpur and 168 (33.6%) from Bharatpur.

2.4 Theoretical Framework for Analysis

The two theoretical frameworks for the study are economic resilience theory (Adger, 2000; Briguglio et al. 2009; Rose, 2009) and the livelihood framework (Ellis, 2000; Gurukulam, 2009). These two theoretical frameworks are interrelated as they seek to understand how individuals and communities respond to shocks and build sustainable livelihoods; thereby serving as a framework for analyzing the economic resilience of Nepal's rural-to-urban migrants.

Economic Resilience Theory

Economic resilience theories indicate that resilience has multiple dimensions and that there are three major components/elements of resilience (Rose, 2009): (1) Absorptive capacity: The ability to reduce the severity of shocks experienced by minimising the impact of the shocks over time by way of savings or having multiple income sources; (2) Adaptive capacity: The ability to alter oneself or adapt behaviour in response to changing environments by way of upgrading skills and having confidence in one's economic security (i.e., psychological coping) and; (3) Transformative capacity: The ability to undertake changes in structural or behavioural patterns and create long-term sustainable livelihoods (e.g., through formal education or employment).

The theory distinguishes between two types of economic resilience; which refer to this distinction as objective versus subjective economic resilience. Objective economic resilience consists of tangible, measurable resources; for example, income from employment, household assets, and employment skills. On the other hand, subjective economic resilience is composed of intangible resources (i.e., cognitive factors), such as perceptions, feelings of confidence, and the ability to cope psychologically with economic hardships experienced (Briguglio et al., 2009). To be economically resilient as rural-to-urban migrants, individuals need objective and subjective measures. An example of objective economic resilience for rural-to-urban migrants is their livelihood strategies. Diverging their income and/or different employment opportunities provide additional measures of objective resilience; however, both of these strategies also provide a measure of an individual's perceived economic security; i.e., their subjective economic resilience. Both objective and subjective economic resilience are important in creating a pathway for individuals living in rural areas and adapting and coping with the challenges they face as a result of the economic shocks encountered in urban areas.

Livelihood Framework

The Livelihood Framework (Ellis, 2000; Gurukulam, 2009) identifies six different types of capital (natural, physical, social, human, financial, spiritual) that affect individual and household economic outcomes. The Livelihood Framework also identifies four contexts (income, expenditure, employment, and risk) that impact how these different types of capital are used to achieve economic outcomes. The Livelihood Framework offers that income diversity and human capital (education, skills, subjective perceptions) are the two most important forms of capital that will produce resiliency. Due to the emphasis the Livelihood Framework places on income diversity as the means to reducing risk and providing stability, this research focuses on income diversity as an aspect of strengthening resiliency (Ellis, 2000).

Therefore, in creating this concept of Economic Resiliency, the Livelihood Framework and the Economic Resiliency theory are the lens with which both objective and subjective livelihoods are evaluated to determine the overall impact of developed and individual resiliency, and to determine the controlled variables (i.e., education, social capital from marital status) that mediate the impact of objective and subjective resiliency.

2.5 Variable definition and operationalization

All variables were operationalized using the Livelihood Framework and the Economic Resiliency theory and are consistent with existing literature (Briguglio, 2009; Rose, 2009; Sinha, 2022) in both migration and resiliency areas. The variables are divided into dependent variables, independent variables (core and interactive), and control variables.

Dependent Variable: Economic Resilience

Economic Resilience is measured as the composite 0-5 index rating created from PCA as a statistical technique to develop a latent factor index (Hair, 2019) that creates a single index from multiple definitions with pre-established theoretical definitions of migrant resilience (Adger, 2000; Rose, 2009): 1) the stability or consistency of income over the last 12 months; 2) the ability to maintain adequate resources to cover essential needs when sudden loss of income occurs; 3) the willingness/ability to learn new skills that will enable one to adapt to economic changes; 4) their level of confidence in their continued employment; and 5) their ability to utilize savings to pay unanticipated expenses.

The index assigns a value to each definition for Economic Resilience through PCA derived loadings; therefore, the higher the index value, the more economic resilience the individual possesses. The index was assessed for its internal consistency using Cronbach's alpha ($\alpha = 0.52$). Although Cronbach's alpha is less than the traditional cutoff score of 0.70, conceptually it is considered acceptable since Economic Resilience is composed of multiple dimensions (each with separate, yet interrelated definitions), and low alpha scores are common in Livelihood and Migration research (Sinha, 2022). Each of the five indicators of Economic Resilience remains in the index due to their theoretical and contextual relevance to Nepali Migrant Resilience.

Independent Variables

Income Diversity (Major objective variable)

Income Diversity is operationalized as a countable index (0-6) of the number of different income sources for each of the respondents (i.e., wage employment, self-employment, remittances, informal work). The income diversity index is a true measure of livelihood diversification, and since the respondents are all recently migrating, it is expected that respondents will possess higher rates of income diversification. Formal definitions of income diversity were obtained through Posso and Clarke (2016) and Sinha (2022) as the basis of determining true income diversity.

Perception on economic security (Major objective variable)

Economic security was evaluated with a 5-point Likert scale (rating range of 1 = very low economic security to 5 = very high economic security) reflecting subjective evaluations of general economic security level by migrants. Three dimensions are included to operationalize the core dimensions of economic security through a range of three items evaluated for subjective measurement of economic security levels. The three items correspond to the following dimensions: (1) job security – I have confidence that I will be able to continue to be employed; (2) adequacy of current income – I have enough income to provide for my essential needs; and (3) future economic prospects – I have an optimistic view of my future financial condition while living in this city. The average scores on these three items were used to create an overall perceived level of economic security composite index (scale range of 1 - 5 points). Higher composite index score values reflect a more positive perception of economic security overall.

Interactive Variable (Income Diversity × Perceived Economic Security)

To investigate how these indexes contribute to a person's overall economic resilience, we created an interaction term between them by multiplying together the Income Diversity Index with the Perceived Economic Security Index (Hair et al., 2019). The created interaction term explains whether positive perceptions of the economy will amplify or decrease the impact of Income Diversity on overall Economic Resilience.

Control Variables

Based on existing research, confounding sociodemographic and employment factors that affect economic resilience of migrants were utilized to select control variables (Barker et al., 2023; Sinha et al., 2022). Each of these control variables is classified into three sets of categories as categorized below: (1) Individual characteristics—Age of respondent (continuous years); Gender of respondent (binary, 1=male; 0=female); Level of education completed (ordinal 1=no formal education through 7=postgraduate); Marital status (binary, 1=married; 0=not married); (2) Employment characteristics—Average number of hours worked per week (ordinal zero (0) unemployed to six (6) greater than sixty (60) hours per week); and, (3) Migration characteristics—Length of time lived in urban area (ordinal 1=6 months (up to) - 2 years (at least) through four (4) longer than ten (10) years).

2.6 Analytical framework and hypotheses

The analytical framework tests the direct and interactive effects of income diversity (objective resilience) and perceived economic security (subjective resilience) on migrant economic resilience, controlling for sociodemographic and employment factors. Based on economic resilience theory and the livelihood framework, three hypotheses are formulated:

- **H1:** Income diversity has a positive and statistically significant effect on the economic resilience of rural-to-urban migrants in Nepal (greater diversification → higher resilience).
- **H2:** Perceived economic security has a positive and statistically significant effect on migrant economic

resilience (more positive perceptions → higher resilience).

- **H3:** The positive effect of income diversity on economic resilience is amplified by positive perceived economic security (the interaction term is positive and significant).

2.7 Econometric Methods

All analyses were carried out in Stata version 18.0, applying the use of robust standard errors in order to resolve issues of heteroscedasticity which are often associated with cross-sectional survey data (Hair et al., 2019). To test the hypotheses contained within this study, three separate robust OLS regression models were constructed for analysis:

The first model (Baseline Model 1), determines whether or not there is any significance associated with H1 (Income diversity – being the only independent variable);

The second model (Baseline Model 2), determines whether or not there is any significance associated with H2 (Perception on economic security – being the only independent variable); and

The third model (Interaction Model 3), determines whether or not there is any significance associated with H3 (Income diversity, perception on economic security and their interaction term, all being independent variables).

The general OLS regression specification is: $ER_i = \beta_0 + \beta_1 ID_i + \beta_2 PES_i + \beta_3 (ID_i \times PES_i) + \beta_4 X_i + \epsilon_i$ where:

- ER_i = economic resilience index for migrant i ;
- ID_i = income diversity index;
- PES_i = perceived economic security index;
- $ID_i \times PES_i$ = interaction term;
- X_i = vector of control variables;
- β_0 = constant term;
- $\beta_1 - \beta_4$ = coefficients to be estimated;
- ϵ_i = random disturbance term.

2.8 Robustness and validity check

A three-prong testing protocol was executed for verification of regression results (Hair, et al., 2019):

- 1) The resilience index based on PCA was replaced with the five-resilience indicator mean.
- 2) Using Tobit regression to better accommodate the bounded range (0 to 5) of the resilience index.
- 3) Exclusion of observations with extreme values on the dependent variables (i.e., income stability; perception of economic stability; resilience).

Results from the above tests were all consistent with the originally proposed OLS models providing additional veracity to the treatment results. The tests also included a Variance Inflation Factor (VIF) to verify independent variable multicollinearity. A mean VIF score of 1.26 (i.e., all $VIF < 10$) confirmed that no significant multicollinearity was present (Hair, et al., 2019).

2.9 Ethical Considerations

All study procedures were conducted in compliance with the 1964 World Medical Association Declaration of Helsinki and UCASS ethical standards. All participants provided informed consent prior to survey participation and were reminded that participation was voluntary, that their identity was confidential, and that they have the right to discontinue their participation at any time. Any information collected regarding study participants was made confidential (e.g., names, mailing addresses, and unique identifiers) in order to protect participant privacy and was stored in a digital format with password protected access. Study results will not reflect the experiences or beliefs of any vulnerable groups including minors or refugees.

3. Result and Discussion

3.1. Result

3.1.1. Descriptive Statistics

The descriptive statistics for the dependent, independent and control variables were provided in Table 2; however, the sample sizes used were: unadjusted sample=500 and regression sample=446.

Table 2: Descriptive Statistics of Variables (N=500)

Variable	Obs.	Mean	SD	Min	Max
Dependent Variable					
Economic Resilience Index	446	3.053	0.946	0	5
Independent Variable					
Income diversity index	500	1.364	0.701	0	6
Perception on economic security	500	2.656	0.907	0	5
Control Variables					
Age	500	33.502	10.596	15	76
Gender	500	1.432	0.495	1	2
Marital Status	500	1.688	0.674	1	4
Education Level	500	4.268	1.649	1	7
Duration of stay	500	3.596	0.806	1	4
Average working hours	500	2.898	1.644	0	6

Source: Field survey, 2025

Key descriptive findings include:

- **Economic Resiliency:** The mean score of 3.053 (SD=0.946) indicates that individuals in this sample have moderate resiliency (an ability for individuals to respond to economic shocks). The average individual in this study is moderately resourced and can respond to economic shocks but has no evidence of being able to rely on their resources.
- **Income Diversity:** The mean score of 1.364 (SD=0.701) indicates that only 35.8% of the individuals in this study are using three or more sources of income; in contrast, 65.8% are using only one source. This suggests that there is limited diversity in livelihoods for individuals in this sample.
- **Perception on economic security:** The mean score is 2.656 (SD = 0.907), indicating moderately negative subjective perceptions, migrants have low confidence in their economic security and future prospects.
- **Sociodemographic:** The sample is predominantly male (mean gender = 1.432), married (mean marital status = 1.688), and has primary/lower secondary education (mean education = 4.268). The average age is 33.5 years, and the average duration of urban stay is 3.6 years (moderate migration experience).

3.2 Bivariate Correlation Analysis

Table 3 presents the Pearson correlation coefficients between the dependent variable (economic resilience) and all independent/control variables. Correlation coefficients < 0.7 confirm no severe bivariate multicollinearity (Hair et al., 2019).

Table 3: Bivariate correlation with economic resilience index

Variable	Correlation with Resilience	Interpretation
Income Diversity Index	0.038	Very weak positive correlation
Perceived Economic Security Index	0.185	Weak-to-moderate positive correlation
Education Level	0.120	Very weak positive correlation
Average Working Hours	0.104	Weak positive correlation
Gender	-0.108	Weak negative correlation

Age	0.121	Very weak positive correlation
Marital Status	0.109	Weak positive correlation
Duration of Urban Stay	0.045	Very weak positive correlation

Source: Field survey, 2025

Key correlation findings:

- Perceived economic security has the strongest bivariate association with resilience ($r = 0.185$), providing preliminary support for H_2 .
- Income diversity has a near-zero bivariate correlation with resilience ($r = 0.038$), which does not support H_1 in bivariate analysis, this relationship is further tested in multivariate regression (controlling for confounding factors).
- Gender has a weak negative correlation with resilience ($r = -0.108$), indicating female migrants have lower resilience than male migrants.
- Duration of urban stay has a near-zero correlation with resilience ($r = 0.045$), suggesting migration experience does not independently shape resilience in bivariate analysis.

3.3 Multicollinearity Test (VIF)

Table 4 presents the VIF test results for all independent and control variables. All VIF values range from 1.05 to 1.78, with a mean VIF of 1.26—well below the 10 thresholds for severe multicollinearity (Hair et al., 2019). This confirms that the assumed regression models are satisfied, and makes reliable interpretation of the coefficient.

Table 4: Variance Inflation Factor (VIF) Test

Variable	VIF
Age	1.78
Marital Status	1.63
Education level	1.19
Perception index	1.13
Average working hours	1.14
Gender	1.10
Income diversity index	1.06
Stay duration	1.05
Mean VIF	1.26

Source: Field survey, 2025

3.4 Regression Results

This section will outline the findings from the OLS regression analysis for Hypotheses 1, 2, and 3. As the models will all include controls for the current structure of income as well as for variables, such as age, sex, years of education, race, migration status, and average hours worked per week, it will not be included in this analysis; however, the data supporting Hypothesis 1, income diversity, will be analyzed without controlling for other variables.

3.4.1 Hypothesis 1: Income Diversity and Economic Resilience

Model 1 examined the relationship between income diversity (as the only independent variable) and the level of economic resilience. The results from Table 5 indicate that income diversity positively and statistically significantly influences levels of economic resilience ($\beta = 0.695$; $p < 0.001$). Therefore, for each additional source of income that an immigrant has, their level of resilience will increase by an average of 0.695 points on a scale from 0–5 after controlling for social, demographic, and employment-related variables. This provides very strong support for $H1$.

Of the control variables, four of them had statistically significant relationships with levels of economic resilience:

- Gender ($\beta = -0.210$, $p < 0.05$): Female migrants have lower resilience than male migrants (gender gap).
- Marital status ($\beta = 0.219$, $p < 0.01$): Married migrants have higher resilience than unmarried migrants (social support effect).
- Education level ($\beta = 0.062$, $p < 0.05$): Higher education increases resilience (human capital effect).
- Average working hours ($\beta = 0.073$, $p < 0.05$): Longer working hours increase resilience (income security effect).

Age and duration of urban stay are not significant. The explanatory power of the model is 31% ($R^2 = 0.31$) which is robust fit for research (Sinha et al., 2022).

Table 5: Regression Results for Hypothesis 1 (Model 1)

Variables	Coefficient	Robust Std. error	P-value
Income diversity index	0.695	0.072	0.000***
Age	-0.001	0.005	0.759
Gender	-0.210	0.082	0.011*
Marital status	0.219	0.070	0.002**
Education level	0.062	0.024	0.012*
Duration of stay	0.021	0.049	0.657
Average working hours	0.073	0.028	0.010*
Constant value	1.506	0.307	0.000***

*Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; Source: Field Survey (2025)

Total number of observations: 446

R-squared : 0.31

3.4.2 Hypothesis 2: Perception on Economic Security and Economic Resilience

Tested in Model Two is H2 (the only Independent Variable Hypothesis being Economic Security) and results (Table 6) indicate there exists statistical significance at the $p < 0.05$ level of estimation; perceived Economic Security has a positive impact on Economic Resilience ($\beta = 0.124$). This means a 1-point increase in the perceived economic security index increases a migrant's resilience score by 0.124 points. H2 is supported, though the effect size is smaller than that of income diversity.

Among control variables, education level ($\beta = 0.093$, $p < 0.01$), marital status ($\beta = 0.173$, $p < 0.05$), and average working hours ($\beta = 0.080$, $p < 0.05$) are significant. Gender is marginally significant ($p = 0.063$), and age/duration of stay are not significant. The model explains 90.5% of the variance in resilience ($R^2 = 0.905$), a very strong fit—likely due to the subjective nature of both the independent variable and some resilience indicators.

Table 6: Regression Results for Hypothesis 2 (Model 2)

Variables	Coefficient	Robust Std. error	P-value
Perception on economic security	0.124	0.050	0.013*
Age	-0.001	0.006	0.872
Gender	-0.176	0.094	0.063
Marital status	0.173	0.081	0.033*
Education level	0.093	0.027	0.001**
Duration of stay	0.063	0.055	0.249
Average working hours	0.080	0.031	0.012*
Constant value	1.822	0.344	0.000***

*Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; Source: Field Survey (2025)

Total number of observations: 446

R-squared : 0.905

3.4.3 Hypothesis 3: Interactive Effect of Income Diversity and Perceived Economic Security

Model 3 tests H_3 (income diversity, perceived economic security, and their interaction term). Results (Table 7) show two key findings:

1. Income diversity remains positive and highly significant ($\beta = 0.687$, $p < 0.001$), its effect is nearly unchanged from Model 1.
2. Perceived economic security is marginally significant ($\beta = 0.076$, $p = 0.067$), its effect weakens when included alongside income diversity.
3. The interaction term is not statistically significant (results not shown), and the model's explanatory power increases only modestly ($R^2 = 0.321$, up from 0.31 in Model 1).

H_3 is not supported: positive perceived economic security does not strengthen the effect of income diversity on resilience. Instead, income diversity remains the dominant driver of resilience, with perceived economic security playing a supplementary (marginally significant) role.

Control variables in Model 3 reflect Model 1: gender ($p < 0.05$), marital status ($p < 0.01$), education level ($p < 0.05$), and average working hours ($p < 0.05$) are significant; age and duration of stay are not.

Table 7: Regression Results for Hypothesis 3 (Model 3)

Variables	Coefficient	Robust Std. error	P-value
Income diversity index	0.687	0.072	0.000***
Perception on economic security	0.076	0.041	0.067
Age	-0.002	0.005	0.652
Gender	-0.207	0.082	0.012*
Marital status	0.215	0.071	0.003**
Education level	0.055	0.025	0.029*
Duration of stay	0.018	0.048	0.699
Average working hours	0.064	0.028	0.024*
Constant value	1.406	0.314	0.000***

*Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; Source: Field Survey (2025)

Total number of observations: 446

R-squared: 0.321

Model 3 aimed to analyze how the combination of both perception on economic security (subjective resilience) and income diversity (objective resilience) affected economic resilience. Due to its large, positive, and absolute impact on the model, income diversity was determined to be the primary driver of resilience, followed by marginally positive impacts from perceived economic security. Control variables retained similar directions, as all were significantly informative of economic resilience - as was; gender, marital status, educational status, and hours worked per week. The final model stated the overall variance of 32.1% surrounding economic resilience is determined by both income diversity and perceived economic security. As stated earlier, income diversity was indicated as the strongest factor influencing economic resilience of rural-urban migrants, while subjective perceptions or perceptions of economic security were shown to be complementary to income diversity's effect on economic resilience.

4. Discussion

The purpose of this research was to assess the various factors that influenced economic resilience among Nepali rural-urban migrant populations, with the primary focus on the independent and interactive effects that both objective income diversity and subjective economic security have on the economic resilience of rural-urban migrants. The results provided support for three major research propositions that were theoretically sound in terms of economic resilience theory and the livelihoods approach to understanding how livelihoods can be supported, as well as providing insights specific to Nepali migration study and policy.

4.1 Income Diversity: Primary Driver of Economic Resilience for Rural-Urban Migrants

One finding of this quantitative study that stands out above all the others, due to the strength, positivity, and robustness of this finding ($\beta = 0.695$; $p < 0.001$), is that there exists a very significant positive effect of income diversity (diversification) upon economic resilience, after accounting for sociodemographic characteristics and employment characteristics. Thus, H1 was validated, and there exists validation in all relevant global livelihood resilience literature (for example: Ellis, 2000; Posso & Clarke, 2016; Sinha et al., 2022). These findings are consistent with the recognized influence of diversification, with respect to reducing risk and increasing stability among marginalized populations. For rural-to-urban migrants in Nepal, who face informal employment, income instability, and limited social protection and multiple income sources act as a financial buffer against economic shocks (e.g., job loss, casual work dry spells). Migrants with diverse income streams (e.g., wage labor + small-scale self-employment) are better able to cover basic needs, avoid negative coping strategies (e.g., debt, reduced food intake), and maintain livelihood stability, core components of economic resilience (Rose, 2009).

Notably, income diversity had a near-zero bivariate correlation with resilience but a strong significant effect in multivariate regression. This suggests that confusing factors (e.g., education, gender) cover the true relationship between diversification and resilience in bivariate analysis. For example, female migrants (who have lower resilience) are also less likely to access multiple income sources due to gender-based labor market discrimination, controlling for gender reveals the positive effect of income diversity. This finding underscores the importance of multivariate analysis for unpacking the determinants of migrant resilience.

4.2 Perception on economic security as a weaker resilience factor

"Economic Insecurity, Resilience and the 'True'" are one of the several influences on economic resilience perceived economic security as a relatively strong predictor of overall resilience, versus income diversity ($\beta = 0.124$, $p < 0.05$) prepared) at the margin ($\beta = 0.076$, $p = 0.067$) when added to this explanation. In all these cases of the 'synthetic integer', 'Objective Livelihood Structures' overshadow 'Subjective Factors' for overall economic resilience to an international migration population in Nepal (Briguglio et al, 2009). Objective Resources are the "Base Building Blocks" for economic resilience whereas -Subjective Factors provide a 'sub-region capacity for economic resilience for migrant populations and while having positive economic perceptions (Rose, 2009) of some over high confidence in job security generate resources for an adaptation capacity for economic resilience but do not generate resources for Objective Resilience i.e., through the existence of diverse sources of income). This is within a context of an urban labour market in Nepal that is highly informal and insecure, which therefore cause taxpayers to be of little support of effective, or useful, taxpayer confidence without particularly Objective Livelihood Strategies as evidence of usefulness.

The fit for 'Model 2' ($R^2 = 0.905$) displays a high degree of overlap with the economy of a number of variables that relate to perceived economic security and the objective performance (Employment Security and Financial Coping) of any given objective variable of resilience. The inferences described here suggest the need to combine objective & subjective measures of resilience; with subjective measures being shown to be extraordinarily overestimation of the relationship between perceptions and real-world economic resilience.

4.3 No interactive effect between income diversity and perception on economic security for economic resilience among rural-to-urban migrants

The research studies have produced compelling evidence to support the notion that no evidence of a statistically significant interaction exist between diversity of income and perceived economic security (H3 Not Supported). The performance improvements attributable to the introduction of an interaction term has just below average explanatory power for this model ($R^2 = 0.321$) suggesting that positive perceptions of security have not added any measurable benefit to the objectives of employment at the performance of diversification income sources of Nepali migrants. However; without a subjective assessment of economic security for Nepali migrants, income diversity as an essential resilience to an income economic shock occurs whether or not perceptions exist. Moreover, although previous literature (Tutu & Tschakert) has suggested that there is some value of using positive perceptions for

successful implementation of objective resilience strategy; the overwhelming and largest indicator of objective resilience for Nepali migrants involved their availability through income diversity to provide for them, than through subjective perceptions, was and continues to exist throughout repeated economic shocks.

4.4 Disparities on resilience in the context of sociodemographic and employment

There are substantial differences in economic resilience among all four sub-groups of both immigrants in Nepal. Several of the following variables which were statistically significant indicators of economic resilience to each group. The nature of the evidence presented by each variable indicates a repeated gender inequity (male/female) in Nepali Urban Labor markets as to whether or not these individuals will be economically resilient.

1. Gender; Assuming that economically vulnerable female immigrants have less economic resilience than male immigrants ($\beta = -0.210$, $p < 0.05$). The gender inequity of this population is still clearly demonstrated by historical gender discriminatory practices present in the Nepali Urban Labor Market which have limited equation to skilled or professional employment, have left lower compensation/poor working wrongs, and planned has not allowed for economic resilience based on diversification of income sources. Therefore, the gender-based variable becomes a current, substantive issue in its own regard that requires targeted economic development policy frameworks.

2. Married vs. Single; Married migrants are from a higher income economic centered area and ($\beta = 0.219$, $p < 0.05$) than single migrants as compared to both equally fulfilling social/economic responsibility for one or more of their dependents (Olcese et al 2023). Married migrants produce a larger amount of income, income/generate multiple receipts, and be able to efficiently share their living expenses; as well as provide, to an extent, emotional and stimulus support to repeatedly to the "back" by their way of breeding.

3. Education Level: The amount of education that a person has received will cause them to be more resilient than a person who has received less education ($\beta = 0.062$, $p < .05$). Additionally, education can be viewed as a type of capital (Ellis, 2000) and the more education a person has, the better, higher-paying, more secure jobs they will usually obtain, and therefore the greater opportunity they will typically have to get more than one source of income, both of which can help in building up their resources of resilience.

4. Average working hours: Working longer hours increases a person's resilience ($\beta = 0.073$, $p < .05$). Furthermore, the more hours a person works, the more money they will typically earn per hour/day; therefore, longer working hours for informal workers who earn by the hour or by the day will typically result in more money for them and thus will lead to greater resilience.

In addition, age and amount of time spent living in an urban area are not important in determining a person's resilience. This finding contradicts the assumption that the length of time a person has been a migrant or their advanced age will be factors in increasing their resilience; rather, the evidence indicates that the type of livelihood strategies they are using (e.g., diversifying their sources of income) and their level of education (i.e., human capital) will be much more important indicators of resilience than either their level of migration experience or their chronological age. The findings of Sinha et al. (2022) are consistent with these findings, as they too found that agency through the ability to use different livelihood strategies shape a migrant's resilience and not structural factors (e.g., the length of time they have been a migrant).

4.5 Theoretical and Empirical Contributions

The study provides two important theoretical contributions (a) it shows that objectively measured resilience and subjectively measured resilience can be integrated within migration studies, where objective indicators (such as how diverse their income is) provide the basis for exhibiting resilience with an additional component of resilience exhibited through subjective indicators (perceptions about economic security), and thus strengthens the basis of resilience based on empirical research about these two aspects of the construct; and (b) extends the theory of economic resilience to an understated area of South Asia (in this case, rural to urban migration in Nepal), where

the foundational principles of the theory are demonstrated to apply to those who migrate from a rural environment and relocate to urban settings.

In a more empirical sense, the study also contributes to the existing body of knowledge through the provision of the first empirical assessment of economic resilience among one of Nepal's fastest growing demographic groups (i.e., one group of internally displaced persons), individuals migrating from rural to urban areas. The study provides a quantitative analysis of the gender differential between male and female resilience levels among those who migrate from rural to urban areas and discusses income diversity as a potential resilience strategy with the end result of providing policy recommendations regarding the strengthening of the process of developing and implementing supports.

5. Conclusion and Policy Implications

5.1 Conclusion

This paper investigates about economic resilience among rural-to-urban migrants in Nepal. 500 respondents were sampled to study from 3 major metropolitan cities of Nepal (Kathmandu, Lalitpur and Bharatpur). It also analyzed the independent and joint effect of income diversity and perception on economic security of the migrants on economic resilience. The results of the study produced several key findings:

Income diversification is the most important factor in determining the economic resilience of rural-to-urban migrants with a strong significant and positive correlation to rural-to-urban migrants' economic resilience ($\beta = 0.695, p < 0.001$), even after adjusting for sociodemographic and employment variables. Livelihood diversification provides essence for many of the rural-to-urban migrants as a critical economic support against urban economic shock and effects.

While perceived economic security contributes positively to economic resilience ($\beta = 0.124, p < 0.05$), it is a lesser contributing factor compared to income diversity. The empirical evidence produced a marginally significant result regarding perceived economic security when controlling for both factors in the same analysis run. Objective livelihood structures are more influential in producing real-life resilience outcomes than subjective opinions of the migrants.

There are no interactions between income diversity and perceived economic security. The benefits derived from an economic-positive perspective do not enhance the economic positive impacts related to income diversity. Regardless of the subjective economic security perceived, the protective benefits from economic security are embedded in the structure of the economic system.

Continued disparities exist in resilience where there are distinct differences between migrant groups in terms of economic resilience. Specifically, female migrants had lower economic resilience compared to male migrants; married, educated, and those who worked longer had greater economic resilience. Both the age of the migrant and the length of time living in an urban area do not independently correlate with economic resilience.

The results of this study offer evidence that economic freedom and therefore economic security for rural-to-urban migrants in Nepal is primarily driven by objective livelihood strategies (e.g: income diversity) versus perception of income or length of the individual's migration. For rural-to-urban migrants who work in unregulated, unreliable urban labour markets having multiple income sources is the primary way to endure and recover from economic shocks. Furthermore, the study further demonstrates the need for an effective method in addressing the gender inequities in urban labour markets, as female rural-to-urban migrants are disproportionately at risk for economic shocks.

5.2 Policy Implications

The findings from the research suggest that policymakers in Nepal can use the information to develop gender-specific policies that will enhance the economic resilience of rural-to-urban migrants. The findings align with both the National Urban Development Strategy and the 14th Five-Year Plan of Nepal (NSO, 2023). The suggested policies focus on developing and implementing strategies for building objective resilience (diversifying income) and reducing access to disparities in resilience:

1. **Support Livelihood Diversification for Migrants:** To support migrant diversity, the government and development partners should create programs to facilitate income diversification for refugees and migrants. For example, developing microfinance and small business loan programs to support refugee and migrant self-employment options such as street vendors or home-based businesses. In addition, government and development partners should develop urban sector-specific skill training programs in demand with the goal of expanding income sources for migrants; and, finally, establish market opportunities for migrant entrepreneurs, such as access to local markets and e-commerce platforms.

2. **Address Gender Disparities in Urban Labour Market:** To eliminate the gender resilience gap, policymakers will: develop policies that enforce existing anti-discrimination laws in urban employment to ensure that female migrants receive equal pay and access to job opportunities; develop policies that provide targeted skill training and microfinance, such as women's self-help groups, to facilitate access to economic and financial resources in urban areas; and expand access to childcare and secure housing, which are significant barriers to women's ability to diversify their income and work for longer hours.

Enhance Migrants Human Capital: Investing in migrant education and skill enhancement programs, including non-formal education for low literate migrants and vocational training for industry sectors experiencing demand, will increase the capacity of migrants to access formal employment, diversify incomes and establish a solid foundation of resilience.

Strengthen Migrant Social Protection: The government and development partners should develop programs to expand the use of social protection programs for rural-to-urban migrants, including: establishing informal worker social protection schemes (e.g., health insurance, unemployment benefits) and establishing savings and credit cooperative programs that allow migrants to generate financial capacity to support their needs, as well as establishing migrant support centers in major metropolitan areas to provide information regarding employment, skill training, and access to social services.

Promote Inclusive Urban Planning: Integrate rural-to-urban migrants into urban planning processes to ensure access to essential infrastructure, such as water and sanitation; healthcare; and affordable housing, and to create inclusive urban development in order to reduce the vulnerability of migrants and enhance their ability to develop long-term resilience.

5.3 Limitations and Future Research

The current research has three major limitations which able to identify possible future areas of exploration:

1. **The cross-sectional design:** This research relies solely upon cross-sectional data, limiting the investigation of the resilience of migrants as it relates to dynamic change over time (e.g., for example how resilience may change as a function of economic shocks such as recessions). There is a need in future research to obtain longitudinal data to effectively track the resilience of migrants over time while identifying the causal pathways associated with their resilience.

2. **The geographical scope:** The geographic scope of this study are three major metropolitan cities located in Bagmati Province and therefore the results may not be appropriate to generalize to migrant populations within smaller urban centers or in other provinces (such as Province 1 or Lumbini). Future research should increase the geographical location of this research to include populations from more diverse urban centers throughout the Republic of Nepal.

3. **Qualitative context:** The current research relies upon quantitative data to investigate the resilience of migrants but does not include any qualitative context regarding the experiences that migrants have established for themselves (e.g. how they derive income through multiple strategies and what barriers they have encountered).

Future research should use multiple methods (quantitative and qualitative) to understand the experiences of the migrants.

Despite these limitations, the current study represents an important contribution to the growing empirical literature surrounding the resilience of economically disadvantaged people in Nepal, and the results of this research may therefore represent an important resource for identifying viable options for implementing policies aimed at promoting inclusive urban development. Given that rural to urban migration continues to increase in Nepal, investing in the economic resilience of migrants is necessary not only as a matter of social justice but also as a prerequisite to achieving sustainable and equitable economic growth.

Author Contributions: All authors contributed to this research.

Funding: This study received no funding.

Conflict of Interest: The authors declare no conflict of interest.

Informed Consent Statement/Ethics Approval: Not applicable.

Declaration of Generative AI and AI-assisted Technologies: This study has not used any generative AI tools or technologies in the preparation of this manuscript.

References

- Adger, W. N. (2000). Social and ecological resilience: Are they related? *Progress in Human Geography*, 24(3), 347–364. <https://doi.org/10.1191/030913200701540465>
- Barker, N., Davis, C. A., & López-Peña, P. (2023). Migration and resilience during a global crisis. *European Economic Review*, 158, 104524. <https://doi.org/10.1016/j.euroecorev.2023.104524>
- Basu, S., & Islam, M. A. (2021). Socioeconomic impact of rural-urban migration in Bangladesh: An econometric analysis. *JnU Journal of Economics*, 3(1), 127–140.
- Bhattarai, S., Upadhyaya, B., & Sharma, S. (2023). *State of migration in Nepal* (Research Paper XV). Centre for the Study of Labour and Mobility. https://www.ceslam.org/uploads/backup/State_Of_Migration_In_Nepal_2023.pdf
- Briguglio, L., Cordina, G., & Farrugia, N. (2009). Economic vulnerability and resilience: Concepts and measurements. *Oxford Development Studies*, 37(3), 229–247. <https://doi.org/10.1080/13600810903089893>
- Cardiff University. (2024, April 2). *Guiding local and regional economic resilience*. <https://sites.cardiff.ac.uk/building-resilient-economies/what-is-economic-resilience/>
- Du Toit, D. (2023). Resilience and resistance among migrant male domestic workers in South Africa. *The Thinker*, 96(3), 74–86. https://doi.org/10.36615/the_thinker.v96i3.2677
- Gurukulam, A. (2009). Livelihoods framework: Introduction to Ellis's approach (Working Paper/Report)
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (7th ed.). Pearson.
- Kapadi, D. (2018). Demographic and geographical transition in Nepal: A historical perspective. *Geographical Journal of Nepal*.
- Marius, K., & Venkatasubramanian, G. (2017). Exploring urban economic resilience: The case of a leather industrial cluster in Tamil Nadu. *Savoirs et Mondes Indiens*. https://www.academia.edu/download/54197776/WP9_Exploring_urban_economic_resilience.pdf
- National Statistics Office (Nepal). (2023). *National population and housing census 2021: National report*. Kathmandu: Author. <https://censusnepal.cbs.gov.np>
- Nop, S., & Thornton, A. (2019). Urban resilience building in modern development: A case of Phnom Penh city, Cambodia. *Ecology and Society*, 24(2). <https://doi.org/10.5751/ES-10860-240223>
- Olcese, M., Cardinali, P., & Madera, F. (2023). Migration and community resilience: A scoping review. *International Journal of Intercultural Relations*, 98, 101924. <https://doi.org/10.1016/j.ijintrel.2023.101924>
- Posso, A., & Clarke, M. (2016). Mobility and economic resilience in Melanesia. In *Household vulnerability and resilience to economic shocks: Findings from Melanesia* (pp. 67–81). <https://doi.org/10.4324/9781315587097-14>
- Rose, A. (2009). Economic resilience to disasters (CARRI Research Report No. 8, p. 59). Community and

- Regional Resilience Institute. http://research.create.usc.edu/published_papers/75
- Sinha, S., Narain, N., & Bhanjdeo, A. (2022). Building back better? Resilience as wellbeing for rural migrant households in Bihar, India. *World Development*, 159, 106031. <https://doi.org/10.1016/j.worlddev.2022.106031>
- Tutu, R. A., & Tschakert, P. (2011). Internal migration, risks and social resilience in Ghana. *ProQuest Dissertations & Theses* (3576118), 215. <https://uoelibrary.idm.oclc.org/login?url=https://www.proquest.com/dissertations-theses/internal-migration-risks-social-resilience-ghana/docview/1462878165/se-2?accountid=10792>
- Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper & Row.