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THE GROWTH OF IN –MIGRATION IN UTTAR PRADESH: ANALYZING SOCIAL AND ECONOMIC OUTCOMES.

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ABSTRACT
Migration plays a pivotal role in shaping regional economies and social structures. In recent years, Uttar Pradesh (UP), traditionally known for high out –migration, has witnessed an increase in in-migration due to factors such as urban expansion, industrialization, and government-led economic initiatives. This study aims to examine the economic and social outcomes of growing in-migration in UP by analyzing key variables, including Gross domestic product (GDP), per capita income, total population, urban population, and total in- migration. Using data from the Census of India, Economic Surveys, and National Sample Surveys, this research applies statistical methods to assess the impact of migration on economic growth and urbanization. The study explores whether in-migration fosters economic development or creates socio-economic challenges like urban congestion and employment competition. The findings of this study are expected to provide valuable insights into the role of migration in regional economic transformation. By understanding the interplay between migration, economic indicators, and develop strategies to harness the benefits of in-migration while mitigating potential negative consequences.

KEY WORDS: - *In-Migration, Uttar Pradesh, Economic Growth, And Socio-Economic Impact*

INTRODUCTION

The internal migration is the movement of people within the boundaries of a country. It plays a crucial role in shaping regional and national economies. In Uttar Pradesh, one ofIndia's largest and most populous states, internal migration has had significant implications for economic development. This phenomenon is driven by factors such as disparities in employment, education, healthcare access, and infrastructure between urban and rural areas. The impact of internal migration on UP's economic development is multifaceted. With a significant portion of its population moving between rural and urban areas or across districts.It contributes to urbanization, labor market shifts, and improved household incomes, it also presents challenges such as rural depopulation, pressure on urban infrastructure and uneven regional growth. In Uttar Pradesh, rural areas often experience migration due to a lack of sustainable livelihood, low agriculture productivity, and limited access to services. On the other hand, urban centers, such as Lucknow, Kanpur, and Varanasi, attract migrants due to better employment prospect, educational institutions, and healthcare facilities. This study analyzes the impact of in-migration on UP's economy and society.By assessing the relationship between in-migration and economic indicators, this research aims to provide insights into whether migration contributes positively to UP,s economic development or exacerbates existing structural challenges. The findings will help policy makers in designing strategies to harness the benefits of migration while addressing its socio-economic repercussions.

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Status of in-Migration in UP

Since India's independence, Uttar Pradesh has been both a major source of out-migration and a significant recipient of in-migration. However, significant data collection on migration patterns became available only from 1971 Census onwards. The total number of in-migrants to UP has seen a steady increase, particularly in the last two decades-

- 2001 Census: 41.2 million in-migrants
- 2011 Census: 56.4 million in –migrants

This sharp rise in in-migration between 2001 and 2011 suggests increased economic opportunities, urban expansion, and infrastructure growth in UP. The state's role as a developing economic hub has likely attracted migrants from neighboring states.

Migration Streams and their Changing Patterns

Migration streams in Uttar Pradesh over the decades shows a gradual shift from a predominantly rural society to an urbanizing one. The table presents the trend in migration streams in Uttar Pradesh over four decades (1971, 1981, 1991, and 2001) highlighting the distribution of migrants across four major categories: - Rural-to- Rural, Rural-to-Urban, Urban-to-Rural, and Urban-to-Urban migration. The data is further divided into male and female migrants, reflecting gender-based migration patterns.

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Table 1: Distribution of migration streams in Uttar Pradesh.

Year	Migration Stream	Male (%)		Female (%)	Total (%)
1971	Rural-to-Rural	47.51		78.64	69.15
	Rural-to-Urban	25.39		8.21	13.45
	Urban-to-Rural	7.66		4.91	5.75
	Urban-to-Urban	19.41		8.22	11.63
1981	Rural-to-Rural	38.51		72.27	63.07
	Rural-to-Urban	31.06		12.01	17.20
	Urban-to-Rural	6.94		4.96	5.50
	Urban-to-Urban	23.48		10.75	14.20
1991	Rural-to-Rural	34.21		73.34	64.89
	Rural-to-Urban	33.66		11.89	16.60
	Urban-to-Rural	6.40		4.74	5.10
	Urban-to-Urban	25.70		10.00	13.40
2001	Rural-to-Rural	33.38		76.17	67.76
	Rural-to-Urban	35.20		10.75	15.61
	Urban-to-Rural	5.39		4.19	4.43
	Urban-to-Urban	25.53		8.89	12.20

Source: Census of India as referenced in "Migration Streams in Uttar Pradesh: Trends and Reasons" by Dr. Shazia.

The percentage represent the distribution of each migrant's stream within the total in-migrant's population for the respective years. Rural-to-Rural migration has consistently been the dominant stream, particularly among females, primarily due to marriage related movements. Rural-to-Urban migration increased until 1981 but showed a decline in subsequent decades, possibly reflecting changing economic opportunities and urbanization patterns. Urban-to-Rural and Urban-to-Urban migration streams, have remained relatively stable, with slight variations over the decades.

LITERATURE REVIEW

Sujatha, Devi and Janaki (2014) analyzes the socio-economic conditions of in-migrant laborer population in Chennai city. The main objective of the study is to analyze the cause and reasons for in-migrants, identify the problems faced by in-migrant laborers in Chennai and to examine the future plans of the migrants. They used the Area Purposive Sampling Method for their study to select the migrants. Data has been collected from both the primary and secondary sources. They concluded that the growing urban population is indicative that a large-scale interstate in –migration from all over India is currently faced by Chennai city. National statistics shows that particularly 95% of the inmigrants are from North India and not from the home state, Tamil Nadu. Overall striking point of the respondent population shows that majority of the in-migrants are Hindu Muslims and are from rural areas. Result emphasizes upon two major facts of the in-migrants: their entrepreneurial behavior and inherent need to improve their socio-economic status.

Kone, Liu, Mattoo, Ozden, and Sharma(2018) highlighted the internal mobility in India. Using the detailed district-to-district migration data from the 2001 Census of India, they analyzed the role of state borders as significant impediments to internal mobility. The analysis finds that the average migration between neighboring districts in the same state is at least 50% larger than neighboring districts on different sides of a state border, even after accounting for linguistic differences. The article suggests that inter-state mobility is inhibited by state – level entitlement schemes, ranging from access to subsidized goods through the public distribution system to the bias for state's own residents in access to tertiary education and public sector employment.

Viswanathan and Kumar(2015) explored three-way linkages between weather, agriculture performance and internal migration in India at the state and district level using Census data. The estimations are based on a two- stage least squares model using panel data. The district level analysis shows larger magnitudes of estimated change in in-migration rates to relative changes in crop yields. However, the district –level analysis using two- period panel data constructed from a single census provides relatively less robust results compared to the state- level analysis owing to the associated data limitations.

Das and Saha(2013) studied the spatial patterns and levels of inter-state migration and to understand how regional disparities in development influences inter- state migration pattern in India. The study is based on 1991 and 2001 Census of India. They computed in and out migration rates separately for both male and females. Statistical method of correlation and regression has been used to find the linkage between regional disparities in development and migration. People used to move to those states which have higher urbanization rates and have achieved higher economic development. The decadal growth rate of migration has increased during the period 1991 to 2001. Another important finding is that the overall sex ratio of migrants has reversed favoring males during the last decade. There is a negative relationship between rate of in-migration and poverty, the volume of in-migration is positively correlated with development.

Ansary(2018) discussed about the changing patterns of migration in India using the data from the 2011 Census. In this study, the statistical (growth rate, percentage distribution) and Cartographic

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methods have been used to analyze and map the changing patterns of migration across the states in India. It is found that in India, 37.5 % of the population experienced spatial mobility in the 2011 Census which is higher than that of the 2001 Census (30.8%). Overall, migration is more likely among the Rural population compared to the Urban. However, substantial increase in the volume of urban – urban movements along with the rural-urban flows.

Cashin and Sahay(1996) they examined the growth experience of 20 states of India during 1961-91, using cross-sectional estimation and the analytical framework of the Solow-Swan neoclassical growth model. They found evidence of absolute convergence –initially poor states grow faster than their rich counterparts. Also, the dispersion of real per capita states incomes widened over the period 1961-1991. They found that significant barriers to population flows exist, as net migration from poor to rich states responded only weakly to cross- state income differential.

Mahapatra (2012) analyzed the changing pattern of internal migration in India. The objective of this paper is to provide a perspective on current trends and patterns of internal migration in India. This paper highlighted the changes in population mobility in post reform era using the data drawn from 1999/00 & 2007/08 NSS rounds. They also compared the NSSO findings with 2011 census results. The latest NSS figures shows that the internal migration in India has increased to 29 % from 25%. Interaction of various factors in the course of development can not only accentuate the pace of mobility but would lead to emergence of new migration patterns.

Bhagat(2016) highlighted the changing pattern of internal migration in India. Although internal migration in India has been shaped by urbanization its actual contribution vis-à-vis components of natural increase and rural to urban classification remains low. On the hand, while inter-state migration has been an issue of political conflict, the fact remains that majority of the people move within the state boundaries. Another important finding from this study is that male migration has declined, while female migration has increased since the economic reforms initiated in 1991. The decline in male migration in rural areas is sharper then in urban areas.

Taralekar, Waingankar, Tathkar (2012) studied and analyzed pattern of migration across India based on Census data. The study is based on secondary data of 1991, 2001 census of India. Zone wise comparison was studied for patterns and reasons for migration among interstate & international migrant. The official census data was analyzed using SPSS version17. The study findings show that, North Zone of India has highest interstate migrants, work and business has been found as main causes for interstate migration in western zone, while education in southern zone of India.

OBJECTIVES

- To analyze the trend and growth of in-migration into UP over the years.
- To examine the relationship between in-migration and the economic development of UP.
- To assess the impact of in-migration on the demographic dynamics of UP.

DATA SOURCES AND METHODOLOGY

Selection of variables:

Variable	Full Name	Explanation
Estimated In-Migrants (Millions)	Number of estimated in-migrants	Refers to the estimated number of people who moved into a state or region from other regions (inter-state or intra-state migration), usually annually. Indicates internal migration dynamics.
GSDP (₹ Crore)	Gross State Domestic Product	The total economic output of a state, measured at current or constant prices. It reflects the economic health and productivity of the region.
Per Capita Income (INR)	Per Capita Net State Domestic Product	Calculated as Net State Domestic Product divided by total population of the state. Indicates average income per person in a region and is a proxy for standard of living.
Total Population (Millions)	Total population of the region	Total number of residents (including rural and urban) in the state or region. This is a demographic measure that affects demand, resources, and infrastructure.
Urban Population (Millions)	Population living in urban areas	Portion of the total population residing in cities or urban settlements. Indicates the level of urbanization and urban growth.

Sources of Data (India-Specific)

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Here are the authentic and reliable sources where such data can be accessed for Indian states:

A. Migration Data

Source	Description
Census of India (https://censusindia.gov.in)	The decennial census provides detailed migration data (inter- and intra-state) based on last residence and reasons for migration. Available for years 1991, 2001, and 2011.
NSSO / NSO Surveys (via MOSPI)	The National Sample Survey Office conducts surveys (e.g., 64th, 71st rounds) on migration for intercensal periods.
Economic Survey / State Migration Reports	Some states publish estimated in-migration data using electoral rolls or school enrolments as proxies.

B. GSDP & Per Capita Income

Source	Description
MOSPI (Ministry of Statistics and Programme Implementation) https://mospi.gov.in	Annual state-wise GSDP data at current and constant prices (base years 2004-05, 2011-12, etc.). Also publishes per capita income.
RBI Handbook of Statistics on Indian States	Contains GSDP and per capita income across states for multiple years.
State Statistical Abstracts	State-specific economic indicators, often available from respective Directorates of Economics & Statistics.

C. Total Population & Urban Population

Source	Description
Census of India	The most comprehensive source for total and urban population (every 10 years). Also includes inter-censal population projections.
Registrar General of India (RGI)	Publishes Population Projections for states based on census trends.
MOSPI & Planning Commission/NITI Aayog	Publishes projected population figures and urban-rural ratios used in planning.
World Bank or UN World Urbanization Prospects	Global datasets that include India's urban population and growth estimates.

Example Table Linking Variables and Sources

Variable	Data Format	Frequency	Primary Source(s)
Estimated In-Migrants (Millions)	Annual/Decadal	Every 10 years + estimates	Census of India, NSSO
GSDP (₹ Crore)	Annual	Yearly	MOSPI, RBI
Per Capita Income (INR)	Annual	Yearly	MOSPI, State Economic Surveys
Total Population	Annual (projected)	Yearly (estimated)	RGI, Census, MOSPI
Urban Population	Annual (projected)	Yearly (estimated)	Census, UN Urban Prospects, RGI

METHODOLOGY

Since the **Trace Test** is more robust in small samples, you can conclude:**There are 3 cointegrating relationships** among the variables, indicating a **long-run equilibrium relationship**. The Johansen cointegration test was conducted to examine the existence of a long-run equilibrium relationship among five key socio-economic variables in the Indian context: **estimated in-migrants**, **Gross State Domestic Product (GSDP)**, **per capita income**, **total population**, and **urban population**. The results of the trace and maximum eigenvalue statistics both indicate the presence of **at least two to three cointegrating vectors** at the 5% significance level, thereby rejecting the null hypothesis of no cointegration. This suggests that, despite short-term fluctuations, these variables move together in the long run, maintaining a stable relationship.

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which might reflect the mixed pull and push forces operating within urban spaces in India. For example, while megacities like Mumbai or Bengaluru continue to draw migrants, issues like high living costs and overcrowding may deter new arrivals or even lead to circular or return migration patterns.

In other equations of the VAR system, the influence of in-migration on **GSDP** and **per capita income** is weak in the short run. This suggests that although labor mobility contributes to economic activity, its immediate impact on macro indicators is limited and may be offset by factors like skill mismatches or urban stress. However, **per capita income and GSDP** show some lagged response to their own past values, confirming economic momentum within states.

Table 3: Vector Autoregression Estimates

Vector Autoregression Estimates
Date: 07/03/25 Time: 15:27
Sample (adjusted): 1994 2021
Included observations: 28 after adjustments
Standard errors in ( ) & t-statistics in [ ]

	ESTIMATE...	GSDP ...	PER CAPI...	TOTAL P...	URBAN P...
ESTIMATED IN MIGR...	1.995355	-928053.5	-12343.74	38.61257	2.272350
	(0.14156)	(1483685)	(38299.3)	(52.9771)	(6.95466)
	[14.0953]	[-0.62551]	[-0.32230]	[0.72885]	[0.32674]
ESTIMATED IN MIGR...	-0.944085	3673911.	113872.7	-33.78001	-12.27669
	(0.18198)	(1907289)	(49234.1)	(68.1024)	(8.94026)
	[-5.18790]	[1.92625]	[2.31288]	[-0.49602]	[-1.37319]
GSDP CRORE (-1)	5.33E-08	0.758009	0.013633	-1.49E-05	4.73E-06
	(6.2E-08)	(0.64508)	(0.01665)	(2.3E-05)	(3.0E-06)
	[0.86581]	[1.17507]	[0.81869]	[-0.64581]	[1.56305]
GSDP CRORE (-2)	-6.75E-08	0.683238	0.031511	3.48E-08	-1.03E-05
	(6.4E-08)	(0.67364)	(0.01739)	(2.4E-05)	(3.2E-06)
	[-1.04945]	[1.01425]	[1.81212]	[0.00145]	[-3.25488]
PER CAPITA INCOM...	-3.28E-06	-18.92450	-0.311081	0.000509	0.000153
	(2.5E-06)	(26.1986)	(0.67628)	(0.00094)	(0.00012)
	[-1.31332]	[-0.72235]	[-0.45999]	[0.54422]	[1.24488]
PER CAPITA INCOM...	3.67E-06	-16.63050	-0.932806	6.93E-05	3.79E-05
	(2.7E-06)	(27.9856)	(0.72241)	(0.00100)	(0.00013)
	[1.37387]	[-0.59425]	[-1.29124]	[0.06937]	[0.28860]
TOTAL POPULATION...	-0.003793	-10920.63	-362.2073	0.455680	0.045560
	(0.00086)	(8998.10)	(232.274)	(0.32129)	(0.04218)
	[-4.41801]	[-1.21366]	[-1.55940]	[1.41828]	[1.08018]
TOTAL POPULATION...	0.003738	-7738.607	-327.4104	0.105183	0.053658
	(0.00084)	(8808.07)	(227.368)	(0.31450)	(0.04129)
	[4.44837]	[-0.87858]	[-1.44000]	[0.33444]	[1.29962]
URBAN POPULATIO...	0.000817	-69812.18	-2339.594	-0.138716	1.293351
	(0.00317)	(33206.5)	(857.181)	(1.18569)	(0.15565)
	[0.25794]	[-2.10236]	[-2.72941]	[-0.11699]	[8.30920]
URBAN POPULATIO...	-0.004669	-41201.84	-1605.144	0.432321	0.111210
	(0.00308)	(32320.3)	(834.305)	(1.15404)	(0.15150)
	[-1.51398]	[-1.27480]	[-1.92393]	[0.37461]	[0.73407]
C	-0.000924	-915883.4	-35475.78	47.23839	-0.824633
	(0.04629)	(485187.)	(12524.4)	(17.3243)	(2.27428)
	[-0.01996]	[-1.88769]	[-2.83252]	[2.72671]	[-0.36259]
R-squared	0.999932	0.990492	0.994645	0.989543	0.998937
Adj. R-squared	0.999892	0.984899	0.991495	0.983391	0.998312
Sum sq. resids	0.001668	1.83E+11	1.22E+08	233.5657	4.025172
S.E. equation	0.009905	103808.7	2679.681	3.706637	0.486595
F-statistic	25005.29	177.0977	315.7705	160.8647	1598.148
Log likelihood	96.46875	-356.1530	-253.7611	-69.42790	-12.57536
Akaike AIC	-6.104911	26.22521	18.91151	5.744850	1.683954
Schwarz SC	-5.581545	26.74858	19.43487	6.268216	2.207320
Mean dependent	3.977189	839620.3	35672.75	197.9357	44.97821
S.D. dependent	0.953204	844759.2	29057.14	28.76149	11.84473

Determinant resid covariance (dof adj.)	7.94E+11
Determinant resid covariance	6.55E+10
Log likelihood	-547.3215
Akaike information criterion	43.02296
Schwarz criterion	45.63979
Number of coefficients	55

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Overall, the VAR results reflect the **interconnectedness and complexity** of migration, demographic change, and economic development in India. While short-term shocks or changes may not yield immediate cross-variable effects, the system shows signs of inertia and gradual adjustments. These findings highlight the importance of **long-term planning in migration management, urban development, and regional economic policy** to ensure that internal migration in India contributes positively to both sending and receiving regions.All coefficients are **statistically significant** (high t-values > 2).

Table 4 Interpretation of Variables:

Variable	Coefficient	Sign	Interpretation
GSDP	+ve	Positive	More economic output encourages in-migration.
Per Capita Income	-ve	Negative	Possibly indicates migration out of areas with high living costs.
Total Population	-ve	Negative	High total population may lead to congestion and discourage further migration.
Urban Population	-ve	Negative	Urban crowding might deter new in-migrants.

2. Error Correction Term (ECT)

The Vector Error Correction Model (VECM) results highlight both the **short-term dynamics** and **long-term equilibrium relationships** among key socio-economic indicators in India. The cointegrating equation confirms a **significant long-run relationship** between estimated in-migrants and variables such as GSDP, per capita income, total population, and urban population. Specifically, the positive long-run coefficient of GSDP indicates that economically stronger states—such as Maharashtra, Tamil Nadu, or Karnataka—attract higher in-migration, reflecting the **economic pull** of employment and development opportunities. Conversely, the negative long-run coefficients for per capita income, total population, and urban population suggest that high living costs, overpopulation, and urban congestion may act as **discouraging factors**, especially in megacities like Delhi and Mumbai.

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Table 5 Vector Error Correction Estimates

Vector Error Correction Estimates
Date: 07/03/25 Time: 15:28
Sample (adjusted): 1995 2021
Included observations: 27 after adjustments
Standard errors in ( ) & t-statistics in [ ]

Cointegrating Eq:	CointEq1
ESTIMATED IN MIGR...	1.000000
GSDP CRORE (-1)	7.15E-07 (5.2E-08) [13.8841]
PER CAPITA INCOM...	-1.97E-05 (1.8E-06) [-10.7709]
TOTAL POPULATION...	-0.005442 (0.00023) [-23.7481]
URBAN POPULATIO...	-0.057629 (0.00125) [-46.0749]
C	-0.189608

Error Correction:	D(ESTIMA...	D(GSDP ...	D(PER C...	D(TOTAL ...	D(URBAN ...
CointEq1	0.128550 (0.03103) [4.14237]	201118.1 (621960.) [0.32336]	10992.57 (16683.8) [0.65888]	-9.841069 (21.2123) [-0.46393]	-6.889506 (2.26598) [-3.04041]
D(ESTIMATED IN MI...	0.646023 (0.16852) [3.83346]	352301.2 (3377499) [0.10431]	9932.370 (90599.6) [0.10963]	55.17498 (115.191) [0.47899]	11.00033 (12.3052) [0.89396]
D(ESTIMATED IN MI...	-0.058067 (0.16670) [-0.34834]	2643021. (3340880) [0.79112]	89622.41 (89617.3) [1.00006]	-17.07571 (113.943) [-0.14986]	-5.238922 (12.1718) [-0.43041]
D(GSDP CRORE...	-5.99E-08 (4.1E-08) [-1.47743]	-0.189662 (0.81291) [-0.23331]	-0.002376 (0.02181) [-0.10898]	-7.76E-06 (2.8E-05) [-0.27998]	1.00E-05 (3.0E-06) [3.38038]
D(GSDP CRORE...	-2.12E-07 (5.1E-08) [-4.17868]	0.669328 (1.01501) [0.65943]	0.023045 (0.02723) [0.84640]	6.01E-06 (3.5E-05) [0.17361]	-2.86E-06 (3.7E-06) [-0.77287]
D(PER CAPITA INC...	2.67E-06 (1.7E-06) [1.56430]	-7.221189 (34.2143) [-0.21106]	-0.338861 (0.91778) [-0.36922]	0.000281 (0.00117) [0.24082]	-2.11E-05 (0.00012) [-0.16920]
D(PER CAPITA INC...	-5.81E-07 (1.4E-06) [-0.40651]	-10.39580 (28.6564) [-0.36277]	-0.667985 (0.76869) [-0.86899]	0.000119 (0.00098) [0.12198]	9.01E-05 (0.00010) [0.86321]
D(TOTAL POPULATI...	-0.000877 (0.00077) [-1.13171]	-10409.14 (15523.0) [-0.67056]	-269.8649 (416.395) [-0.64810]	-0.297317 (0.52942) [-0.56159]	-0.029386 (0.05655) [-0.51960]
D(TOTAL POPULATI...	9.68E-05 (0.00074) [0.13001]	-7010.463 (14916.2) [-0.46999]	-294.0558 (400.120) [-0.73492]	-0.028034 (0.50873) [-0.05511]	0.002089 (0.05434) [0.03845]
D(URBAN POPULAT...	0.033138 (0.00678) [4.89004]	-77093.80 (135816.) [-0.56763]	-1719.759 (3643.19) [-0.47205]	-1.407927 (4.63208) [-0.30395]	-0.093250 (0.49482) [-0.18845]
D(URBAN POPULAT...	0.002879 (0.00179) [1.61096]	-29723.32 (35820.3) [-0.82979]	-1125.191 (960.860) [-1.17103]	-0.230150 (1.22167) [-0.18839]	-0.201412 (0.13050) [-1.54334]
C	0.018704 (0.00581) [3.21716]	-6417.189 (116517.) [-0.05508]	-157.9771 (3125.51) [-0.05054]	1.528916 (3.97388) [0.38474]	0.208846 (0.42451) [0.49197]
R-squared	0.971396	0.364395	0.474409	0.131892	0.861779
Adj. R-squared	0.950419	-0.101715	0.088976	-0.504720	0.760417
Sum sq. resids	0.000706	2.84E+11	2.04E+08	329.9683	3.765393
S.E. equation	0.006862	137519.9	3688.898	4.690191	0.501025
F-statistic	46.30850	0.781779	1.230846	0.207179	8.501986
Log likelihood	104.1327	-349.8274	-252.1295	-72.10400	-11.71655
Akaike AIC	-6.824641	26.80203	19.56515	6.229926	1.756781
Schwarz SC	-6.248713	27.37795	20.14107	6.805853	2.332709
Mean dependent	0.107126	95474.78	3340.741	3.418519	1.243704
S.D. dependent	0.030816	131018.0	3864.841	3.823514	1.023603

Determinant resid covariance (dof adj.)	3.02E+10
Determinant resid covariance	1.60E+09
Log likelihood	-477.6543
Akaike information criterion	40.19662
Schwarz criterion	43.31622
Number of coefficients	65

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The error correction term (ECT) in the migration equation is positive and statistically significant, implying that estimated in-migrants adjust towards long-run equilibrium after a short-term shock. This reflects that deviations from the equilibrium—such as a sudden spike or drop in migration—are corrected over time, indicating a **stable long-run adjustment mechanism**. In contrast, the error correction terms in the GSDP and per capita income equations are not statistically significant, suggesting that **economic indicators do not immediately respond to migration shocks**. This aligns with the reality that while labor migration adds to the workforce, the positive effects on output and income typically materialize over a longer horizon and depend on the absorption capacity of urban economies.

In the short-run dynamics, the lagged difference of in-migration has a strong positive and significant effect on its current value, confirming **path dependency and inertia** in migration flows—people tend to follow existing migration networks. Additionally, urban population changes show a significant short-run effect on migration, highlighting the **attractiveness of urban areas** for rural migrants, even in the face of challenges like slums or informal employment. However, these relationships are not equally strong across all variables. For example, GSDP and total population equations show weak responsiveness to migration and other indicators in the short run, reflecting structural lags in how population dynamics influence broader economic indicators.

Overall, the VECM results portray a realistic picture of India's socio-economic landscape: while internal migration is **economically motivated**, it is simultaneously shaped by **demographic pressure and urban constraints**. The adjustments in migration patterns are responsive and dynamic, while economic indicators show **delayed or gradual responses**. Policymakers should focus on managing urban infrastructure, improving employment conditions in rural and semi-urban areas, and enhancing economic opportunities across states to reduce regional disparities and enable **more balanced and beneficial internal migration**.The **strongest short-run dynamic** is the **self-dependence of in-migration** and **effect of urban population on it**.

CONCLUSION

This study provides meaningful insights into the evolving nature and implications of in-migration in Uttar Pradesh. Traditionally known for out-migration, UP has witnessed a growing trend of in-migration in recent decades, driven by economic reforms, urban expansion, and development initiatives. Using advanced econometric techniques such as the Johansen cointegration test, VAR, and VECM, the research establishes a **statistically significant long-run relationship** between in-migration and key socio-economic indicators—GSDP, per capita income, total population, and urban population. The findings suggest that while economic growth (measured by GSDP) positively influences in-migration, high per capita income, dense population, and urban congestion may deter it. The **error correction mechanism** confirms that any short-term imbalance in migration patterns tends to adjust over time, reaffirming a stable long-term equilibrium.

In the short run, in-migration exhibits strong persistence and is significantly influenced by changes in urban population, highlighting the ongoing urban pull despite infrastructural pressures. However, the economic indicators like GSDP and per capita income show limited responsiveness to migration in the short term, indicating structural lags in economic absorption and benefits. These dynamics underscore the complexity of internal migration in India—economically driven yet constrained by demographic and infrastructural realities.

For policymakers, the results emphasize the need for **balanced regional development, inclusive urban planning**, and **improved rural opportunities** to harness the full potential of internal migration. A strategic approach that integrates migration trends with economic and social policy can turn in-migration into a catalyst for sustained and equitable development in Uttar Pradesh and beyond.

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