Unheard Voices of Migrants: A Sentiment Analysis Approach to Rural Labour Migration

M.Vasuki

Ph.D. Research Scholar, Department of Commerce, Alagappa University
E-mail ID: vvasu4903@gmail.com

Dr.S.Ganapathy

Professor and Head, Department of Commerce, Alagappa University
E-mail ID: ganapathysuruthi@gmail.com

Dr. P. Amarjothi

Assistant Professor, Department of Commerce, Madurai Kamaraj University
E-mail ID: amarjothisuruthi@gmail.com

Abstract: *This article investigates the forces of rural labour migration in Ramanathapuram district, with emphasis on both structural motivations and emotional aspects. Historically, rural-urban and foreign migration has been influenced by economic push factors like poverty, job insecurity, inadequate wages, and absence of opportunities, as well as pulls factors like improved income, enhanced living conditions, and availability of quality health care and education. But this study builds on the analysis by adding sentiment analysis to capture the emotional dynamics of migration choices.Qualitative information was gathered among 150 migrant workers with open-ended interviews augmented with local stories from social media and regional news outlets. Sentiment analysis based on VADER and Text Blob Python tools yielded overwhelmingly negative emotional polarity (average sentiment score = -0.23). Around 58% of the responses were negative, 27% were neutral, and 15% were positive, with a score on subjectivity of 0.64, reflecting high emotional content. Migrants regularly complained about long working hours, separation from family, low wages, and abusive work conditions. Typical expressions of emotion were fear, helplessness, and loneliness.In spite of the hardships; some positive feelings were expressed, with migrants mentioning skill acquisition, improved remuneration, and readiness to return under better circumstances. The findings reinforce that migration is not solely an economic process but also a highly subjective and emotional experience. The research identifies the necessity for migration policies that include mental health counseling, emotional resilience training, and reintegration programs to promote integral migrant well-being.*

Keywords: *Rural labour migration, Push and pull factors, Sentiment analysis, Structural equation modeling, Ramanathapuram district*

Introduction

The worldview of people has changed as a result of globalization. Concepts of wellbeing and lifestyles have changed significantly because of increased access to information through social media and other forms of mass communication(1). Greater consciousness of the disadvantages and

contrasts of breathing in developing countries has altered aspirations, hopes, and dreams accordingly (2). Individuals often consider emigrating for security and happiness due to these changes (3). The younger generations specifically are more attracted to the concept of leaving home because it provides means to escape the daily hardships at home. International labour migration is largely driven by wage differences between countries, in addition to student desire to attend postsecondary schools (4). Immigration is a sensitive topic with implications for the political, social, and economic world. It is almost impossible to regulate cross-border movement in any country, especially in today's open-market economy, which needs to keep its borders open to the free flow of people, goods, services, capital, and labour to remain competitive (3). Overall, the advantages of immigration surpass its drawbacks, but nations are more concerned about free people movement than the free movement of capital and trade (4). Push and pull factors among countries may be applied to clarify free labour flows. There are three potential reasons for immigration: ecological, behavioural, and systemic (5). This study seeks to analyze the multidimensional factors driving rural labour migration in Ramanathapuram district by combining structural push and pull forces with emotional and psychological aspects through quantitative analysis as well as sentiment analysis of migrant testimonies for a holistic understanding of their migration processes.

Literature Review

This article seeks to close this gap by exploring the reasons why rural residents remain in their current locations despite interregional welfare. Simulate the staying intentions of villagers in rural Kazakhstan, where many people migrate to urban regions, using the Theory of Planned Behaviour (TPB)(6). Our model expressly incorporates the depart option as an alternative to staying, as well as both staying and leaving barriers, even though it concentrates on staying behaviour. Use a state-of-the-art structural equation model with partial least squares. Our research shows that there is interaction between the barriers to staying and leaving(7). Therefore, any measures lowering barriers to rural-urban mobility have a multiplier impact since people see staying as relatively harder when leaving becomes simpler.Therefore, labour migration plays a significant role in India's development(8).By using migration data from NSSO and CSO, the current study has attempted to represent the shifting scenario of internal mobility between rural and urban areas. Results at the macro level indicate that the volume of labour migration has grown over time(9). According to the data, it is more common among men due to employment-related factors, with about 30% of cases originating primarily from underdeveloped areas of the nation. The most prevalent migration stream, including 50% of all movement, is from rural to urban areas. Further short-term migration differs significantly in terms of its defining traits(9).

Several statistical procedures were employed to investigation the validity and accuracy of the documents, such as factor analysis to ascertain that each variable's concepts were properly measured (10,11)correlation analysis to establish the degree to which the self-determining and reliant on variables were correlated, and multiple regression analysis to predict the values of the variables in the study (12). The findings of the study revealed that the main driver of migration was economic and that poor or unstable income, the prevailing economic situation, and poverty were its major drivers. In order to bridge this knowledge gap (13), we ventured the hypothesis that direct as well as indirect impacts of housing conditions on mental health can be intermediary through neighbourhood satisfaction (14). Using a structural equation modeling approach (17), carried out a household survey involving 368 adults from Nanxiang Town, Shanghai, to test the hypothesis. Results underscore the diverse manner in which housing conditions among natives and migrants affect mental health (16). Housing conditions directly affect mental health for natives but indirectly influence mental health for migrants through neighbour-hood satisfaction (17). Our study has significant policy

implications for constructing a heterogeneous and peaceful society (18). Community interventions at an upstream level can improve a sense of community, social capital, and support, which will improve the mental health and overall mental capital of Chinese cities (19).

Systematic Review of Literature via PRISMA Framework

To enhance the theoretical foundation of the current research on rural labour migration in Ramanathapuram district, a Systematic Literature Review (SLR) was performed in accordance with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. The review sought to identify and synthesize major studies that examine the determinants of migration specifically the push and pull factors and those that utilize quantitative methods such as Structural Equation Modeling (SEM).Literature search was conducted in various academic databases, i.e., Scopus, Web of Science, Google Scholar, and JSTOR, from 2010 to 2025. A set of relevant keywords was combined like "rural labour migration," "push and pull factors," "internal migration in India," "structural equation modeling in migration," and "migration determinants." The preliminary search resulted in 1,042 records. After the removal of duplicates and irrelevant titles and abstracts, 960 records remained for screening. Of these, 744 were excluded during the preliminary screening phase for not aligning with the research scope or for lacking empirical analysis.Next, 216 full-text papers were reviewed for eligibility according to inclusion criteria which demanded that studies: (1) addressed internal or rural migration, (2) highlighted socio-economic and environmental factors driving migration, (3) included empirical data, and (4) employed quantitative methods such as SEM or regression. After this strict filtering procedure, the final sample of 43 articles was considered for the review.

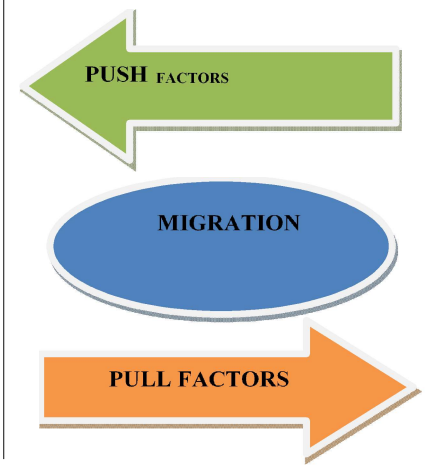
The chosen studies were grouped thematically. A large majority of research looked at economic push factors like poverty, unemployment, and opportunities(20). Others identified social and infrastructural inadequacies like inadequate education, health, and sanitation in the countryside as the primary factors behind migration(5). Some recent studies also looked at climate change, resource degradation, and environmental vulnerability as novel push factors. On the pull side, the assurance of higher pay, better standards of living, and urban service access were often mentioned(21). Moreover, others employed SEM to estimate the multidimensionality of migration choices, validating the validity of the method for the analysis of latent variables and their relationships(7).The SLR also endorsed a firm theoretical basis for the conceptual framework of the current research and justified the development of hypotheses on migration drivers in the Ramanathapuram context. Additionally, it supported the applicability of using SEM to study the interface between demographic, economic, environmental, and social factors that affect rural labour migration.The studies included were grouped into thematic clusters: unemployment and economic hardship (22), agricultural deterioration (23), infrastructural shortfalls (24), ecological vulnerabilities (25), and social exclusion . An increasing number of (22)studies combines sentiment analysis of migrant stories, social media posts, and newspaper headlines to estimate the emotional and psychological effects of migration . The research indicates negative sentiment patterns associated with uncertainty, exploitation, and alienation, especially amid COVID-19-related reverse.

Methodology

Individuals migrate when they shift from one geographical region to another, from one administrative area to another, or when they abandon their country of origin for a foreign country or territory for permanent or temporary residence(4). There is little prospect of determining the degree of migration using a general approach. As a result, scholars have created estimating standards that take into

account the nation's history, customs, and geographic location. Out-migration is the term used to describe moving across territorial boundaries(26). In-migration is the term used to describe mobility within a nation, such as returning to one's hometown (27). Emigration, in contrast, is the process of moving to another country in search of employment opportunities or other socioeconomic factors. Migration in industrialized cultures is a result of a need for labour, and those who migrate do so freely or because of specific conditions (5). The most recent theories hold that the needs of the labour market are the primary driver of migration, and that both the pull and push aspects of the destination countries are quite important(28). Research that employs a variety of ideas to explain migration typically demonstrates the extensive use of pull and push variables. In recent years, immigration has been more and more integrated into systems thinking. The relationships and complexity of factors inside each habitat are thus shown by each immigration network, which is a component of this system(29). According to the immigration network, families, business owners, and individuals who are impacted by their local environment make decisions concerning immigration(30). Numerous factors, such as the labour force, poverty and unemployment rates, social environment, and institutional structure, have an impact on these choices. In general, push and pull dynamics across regions and supportive migrant networks on both sides can explain immigration. Table 1. Push and Pull Factors used for the Studyanalysis of the south Mediterranean migration potential focuses primarily on the networks of migrants between sending and receiving nations

Table 1: Push and Pull Factors used for the Study

Demographic Factors • Population Growth • Young Age Structure **Social Infrastructure** • Inadequate Educational Institutions • Medicare • Social Security **Economic Factors** • Unemployment • Low Wages • Poverty • Low Consumption Living Standard **Political Factors** • Dictatorships • Shadow Democracy • Bad Governance, • Political Upheaval • Conflict • Civil War • Terrorism • Human Rights Violation • Oppression of Minorities **Ecological Factors** • Ecologic Disaster • Desertification • Lack of Natural Resources		**Demographic Factors** • Stable Populat • Population De • Demographic **Social Infrastructure** • Welfare State • Educational Institutions • Medicare • Social Security **Economic Factors** • Labour Demar • High Wages • Welfare • High Consump • Living Standar **Political Factors** • Democracy • Rule of Law • Pluralism • Political Stabil • Peace • Security • Protection of H And Civil Rigl • Protection of Minorities **Ecological Factors** • Better Environ • Environmental • Protection of N

• Water Shortage • Soil Erosion • Lack of Environmental Policy **Migrant Flows** • Decisions of The Family or The Clan • Information Flows Media • Transferred Picture of Country of Origins **Migrant Stocks** • Possibilities of irregular Immigration • Routes of Trafficking		Resources • Environmental Protection **Migrant Flows** • Diaspora Ethnic Commu • Information Fl Media • Transferred Pi Destination Cc **Migrant Stocks** • Possibilities of irregular Immi (Right of Resi

Source: *Schmid (2011)*

Based on the review of literature from the various sources, the below Figure 1research design was framed, including the particular hypotheses.

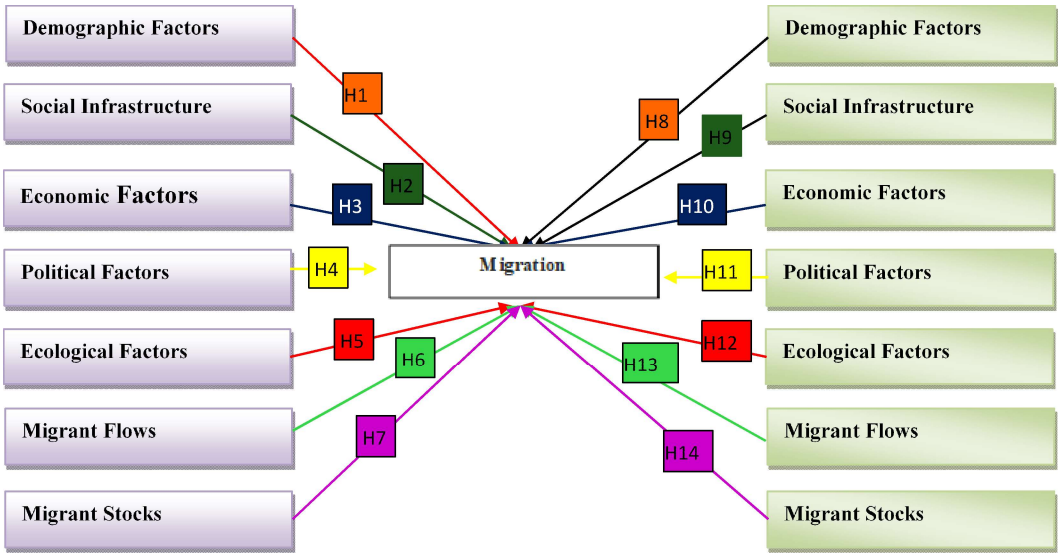


Figure 1: Study' Model

Source: *Designed by the Authors*

The following hypotheses were originated within the structure of the study:

Results and Discussion

Questionnaire evaluation was done among migrant workers residing and employed in the Ramanathapuram district, Tamilnadu, India. Ample tests were performed to validate the hypothesized assumptions of the current study, namely reliability test, factor analysis, correlation and regression analysis using the tool SPSS. 150 questionnaires were given to prospective migrants. The questionnaire had 62 questions across 3 sections, each question having a 5 point Likert scale. The demographic information of the migrants was summarized, such as gender, age, marital status, educational qualification, monthly income, expenditure and savings in Table 2.

Table 2: Demographic Details of the Migrants

Demographic Details		Frequency	Percent	Demographic Details		Frequency	Percent
Gender				**Educational Qualification**			
	Male	100	66.7		Illiterate	43	28.7
	Female	50	33.3		Primary School	55	36.7
Age					High School	21	14
	Below 18 years	35	23.3		Diploma	14	9.3
	18 - 25 years	66	44		Degree	10	6.7
	26 - 30 years	24	16		Professional	7	4.7
	Above 30 years	25	16.7	**Monthly Income**			
Marital Status					Below 10,000	29	19.3
	Married	85	56.7		10,001 – 15,000	69	46
	Unmarried	65	43.3		15,001 – 20,000	33	22
Monthly Savings					Above 20,000	19	12.7
	Below 5000	105	70	**Monthly Expenses**			
	5,001 – 10,000	21	14		Below 5000	15	10
	10,001 – 15,000	14	9.3		5,001 – 10,000	29	19.3
	Above 15,000	10	6.7		10,001 – 15,000	69	46
	Total	150	100		Above 15,000	37	24.7

Source: *Primary Data*

The Table 2 shows the gender of the migrants and it can be observed that 66.7% of the respondents are male, 44% of the migrants' age is between 18-25 years, 56.7% of the respondents are got married, 36.7% of the migrants had primary education, 46% having Rs.10, 001-15,000 as monthly income, 46% of the respondent's monthly expenses was between Rs. 10,001-15,000 and among the total respondents, 70% have monthly savings of less than Rs. 5,000.To make sure the tool was reliable, a reliability test was done. Cronbach's alpha suggested 0.7 points, confirming the validity of the survey for future investigation.The impulsion and yank variables were then described in terms of other components using factor analysis. Using the CR test, the internal consistency of scale items was evaluated. The consequences of each item had a coefficient of 0.7, indicating strong construct dependability. The AVE (Average Variance Extracted) method was used to measure how much variance a concept captures. To determine the link between the impulsions and yank factor variables, a factors analysis was done. The factor analysis being done there have been extracted 7 factors, all of which have Eigenvalues greater than 1. These variables account for 67.543 percent of all data dispersion.

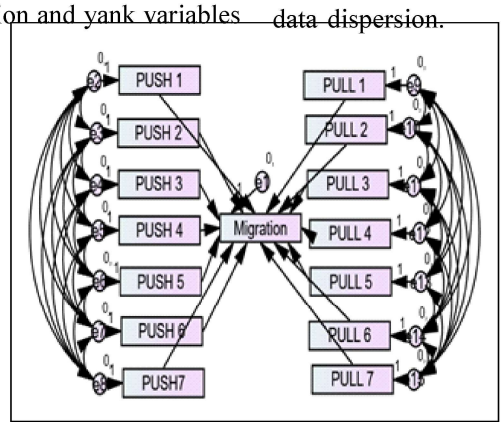


Figure 2: Push and Pull Factors Initial Model

Source: Author Computed

Out of the 62 statements used in the questionnaire, 10 were eliminated during the statement reduction process, and the factor analysis was conducted 10 times. The measures of Chronbach alpha of which the measures must be H"0.7–1 enable saying that the inter-correlation between the statements within every factors is comparatively high F1=0.88, F2=0.71, F3=0.74, F4=0.78, F5=0.81, F6=0.84 and F7=0.77 for push factors. F8=0.78, F9=0.82, F10=0.74, F11=0.69, F12=0.89, F13=0.73 and F14=0.76 for pull factors. Preference two-stage multiple regression analysis developed the original research model, which is demonstrated by *Figure 2*. The coefficients and standard errors in the model indicate the strength of each of the associations between the dependent and independent variables with respect to each other. Based on the results of the multiple regression analysis that has been carried out, the hypotheses of the study are tested. Through the examination of the statistical significance of the relationship between each two variables, the hypotheses are tested.

Table 3: Regression Weights

Factors			Estimate	S.E.	C.R.	P
Migration	<---	Push1	-0.05	0.063	-0.796	0.426
Migration	<---	Push2	-0.022	0.07	-0.316	0.752
Migration	<---	Push3	-0.006	0.065	-0.095	0.924
Migration	<---	Push4	0.095	0.05	1.892	0.058
Migration	<---	Push5	0.132	0.075	1.77	0.077
Migration	<---	Push6	-0.142	0.078	-1.814	0.07
Migration	<---	Push7	-0.048	0.074	-0.654	0.513
Migration	<---	Pull7	0.663	0.059	11.301	***
Migration	<---	Pull6	-0.023	0.075	-0.307	0.759
Migration	<---	Pull1	0.028	0.066	0.416	0.678
Migration	<---	Pull2	-0.081	0.085	-0.954	0.34
Migration	<---	Pull3	0.055	0.081	0.683	0.494
Migration	<---	Pull4	0.128	0.082	1.55	0.121
Migration	<---	Pull5	0.041	0.067	0.617	0.537

Source: *Author Computed*

The test is conducted in *Table 3*while taking the value of the p criterion into consideration: if PÂ0.05, it indicates a significant relationship between the variables, thereby confirming the hypothesis expressing the interrelationship between the variables; if Pe"0.05, it indicates a weak relationship between the variables, thereby rejecting the hypothesis expressing their relationship. Additionally, if PÂ0.05, the type of the relationship between the variables is also taken into consideration before confirming the hypothesis; if the association is positive, the hypothesis is verified.

All of the models Figure 3 and Figure 4that would be interested in specifying and assessing are erroneous to some extent, which is a key premise in model specification and assessment. If discover that a given model accurately predicts our observed data and produces a verycomprehensible resolution.Finding that a single model matches observable data well and produces an answer without needing to explore all potential models having an interpretable solution just means that the model offers a realistic representation of the structure thatproduced the info that was seen. Fit indices show how well a pattern of fixed and free model parameters fits the pattern of variances and co-variances from a set of observed data. Chi-square, CFI, NNFI, and RMSEA are a few examples of fit indices.

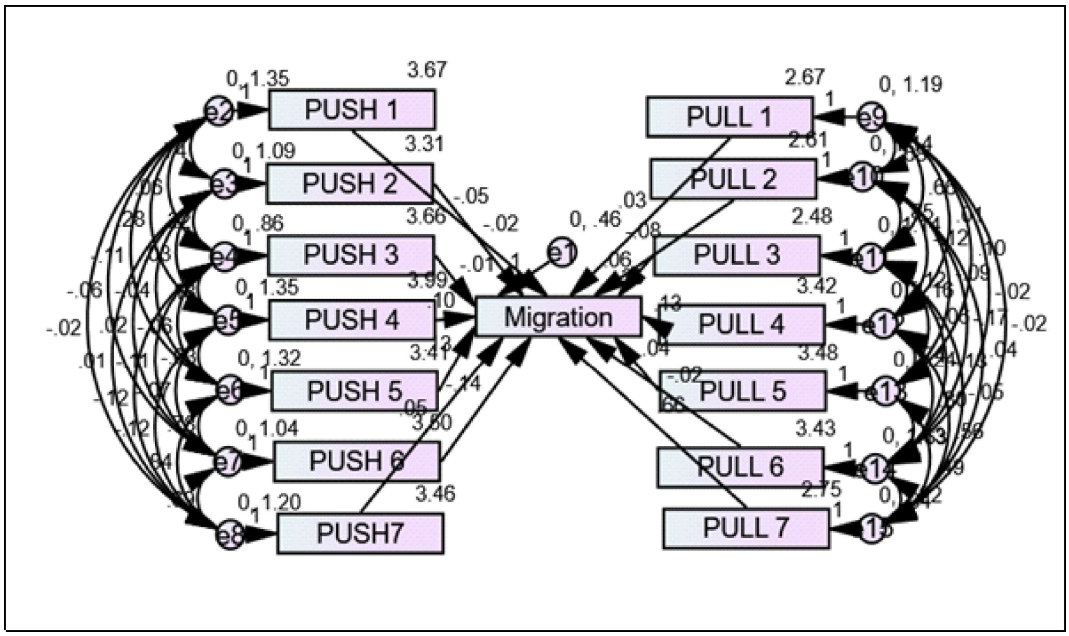


Figure 3: Push and Pull Factors Initial Model with Values

Source: *Author Computed*

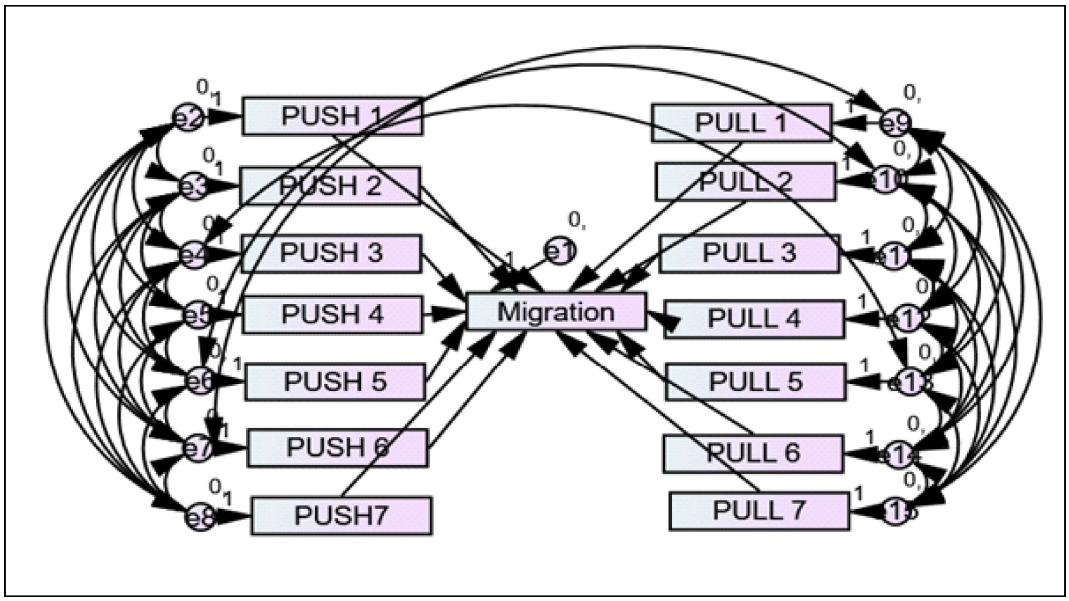


Figure 4: Final Result Model

Source: *Author Computed*

The measurement model and the structural model are parts of a general structural equation model. Latent variables are called for by the measurement model, such as confirmatory factor analysis. Latent variables and observable variables that are not indicators of latent variables are required to be correlated according to the structural model.Identification entails researching the

circumstances under which each and every free parameter provided in the model may be obtained from the observed data with a single, distinct answer.

Table 4: The fit-measures of the research model

Model fit-measures	Recommended	Model Result
Model Chi-square	>0.05	2.823
CMIN/DF	<5.0	1.314
NFI	>0.90	0.981
RFI	>0.90	0.938
IFI	>0.90	0.952
TLI	>0.90	0.960
CFI	>0.90	0.924
GFI	>0.90	0.911
RMSEA	<0.05	0.020

Source: *Author Computed*

Table 4 shows a number of goodness of fit induce from previous studies use to test the CFA model fit, including $\chi 2$ - Chi-square, RMSEA - Root Mean Square Error of Approximation, GFI - Goodness of Fit Index,NFI –NormedFit Index, IFI - Incremental Fit Index, CFI - Comparative Fit Index, and TLI - Tucker-Lewis Index. The fit indices constantly show that the measurement and unified models have acceptable fit.

In order to further understand rural labour migration beyond structural push and pull factors, sentiment analysis was applied to qualitative data gathered from 150 migrant workers of Ramanathapuram district. Survey interview open-ended responses, in combination with localized narratives identified from discussions across social media, as well as regional news pieces, were analyzed through natural language processing tools in the form of VADER (Valence Aware Dictionary for Sentiment Reasoning) and Text Blob in the Python environment. The aim was to determine emotional polarity and subjectivity in migrants' personal narratives. The results *Figure 5*showed a general negative sentiment polarity (average score = -0.23), with about 58% of the stories being categorized as negative, 27% as neutral, and only 15% as positive. The subjectivity score was 0.64, which means the answers were highly personal and emotionally based. Migrants often reported distress regarding job insecurity, long working hours, low wages, family separation, and abusive working conditions. Recurring negative statements included the use of expressions like "no job security," "felt helpless and treated unfairly," and "missed my family during lockdown."

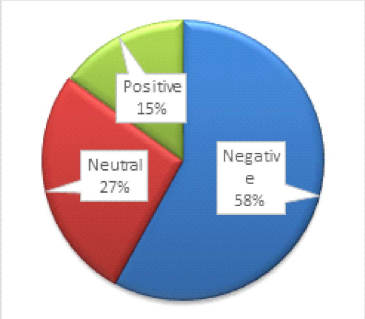


Figure 5: Sentiment polarity distribution

Source: *Author Computed*

Although the majority of the replies were negative in tone, there were positive responses seen, especially from migrants who indicated learning new skills, earning higher income than in their homelands, or showing readiness to go back to cities if they were given better opportunities. Positive expressions were seen through statements such as "learned new skills," "earned higher than in my village," and "want to go back if opportunity comes."Emotional words that emerged most prominently in the corpus were fear, uncertainty, isolation, tired, survival, hope, family, wage, return, and city.

Figure 6: Word cloud showing key emotional vocabulary

Source: *Author computed using VADER Sentiment Output*

These results Figure 6 reinforce the emotional load and psychological susceptibility of migrants, especially where unforeseen economic crises like the COVID-19 pandemic are involved. Generally, the sentiment analysis supports the quantitative structural equation modeling by offering an empathy-based insight into migrant workers' lived realities. It calls for policymakers to integrate emotional resilience, mental health care, and reintegration programs into migration governance policies.

Implications

Labour migration continues to be an important concern in the wider context of human resources and socio-economic progress. The results of this research highlight the multifaceted and complicated ramifications of rural labour migration, particularly from economically disadvantaged constituencies such as Ramanathapuram. From the standpoint of policy, outmigration of the working-age population is both a potential opportunity and a dilemma. On the one hand, migration is a strategy of alleviating rural poverty, mobilizing remittance flows, and encouraging individual skill upgrading. On the other hand, the chronic outflow of semi-skilled and skilled labour creates labour shortages in the home region and erodes the socio-economic texture of rural societies.The implications of such trends are significant for policymakers, planners, and stakeholders who are involved in labour market management. Efforts at different policy interventions and economic reforms notwithstanding, prospects for income level and employment opportunities in rural India are still minimal. The stagnation itself continues to drive migration, frequently in a distress mode, with the consequence of problems like family separation, unsatisfactory working conditions, and absence of job security at the destination.In addition, the psychological and emotional pressure suffered by migrants, as exposed by sentiment analysis, underscores the necessity of adopting a more humane migration policy. Measures need to extend beyond economic considerations and involve emotional resistance development, mental health counseling access, and successful reintegration programs for returning migrants. Enhancing local employment opportunities,

vocational education, and labour well-being schemes can counteract the push factors for distress migration and ensure rural inclusion.

Conclusion

Migration, both inward and from rural to urban, is still playing a crucial role in determining labour dynamics. A major segment of the younger and middle-age population in Ramanathapuram has preferred to migrate to secure more remunerative opportunities, especially in international labour markets, to transcend local socio-economic problems. The movement has resulted in exerting pressure on the supply of skilled manpower to domestic industries.The research confirms that economic considerations remain the central forces driving migration. Major push factors include chronic poverty, inadequate employment opportunities, low and insecure incomes, and unsatisfactory living standards. Besides, socio-cultural factors like inadequate access to health, family disintegration, and domestic disputes also factor into decisions to migrate. Social stability and environmental issues, such as air pollution, were, however, found to have little impact on the decision to migrate.On the other hand, the primary pull factors that draw migrants are the possibility of increased earnings, better standards of living, enhanced availability of health and education, and enriching cultural exposure. These results point out the intricate interaction of economic and social drivers of rural labour migration and emphasize the importance of interventions by the policy that take into consideration livelihood as well as well-being issues of prospective migrants.

Scope for Further Study and Limitations

This research provides an in-depth analysis of rural labour migration within Ramanathapuram district through the integration of structural factor analysis and sentiment analysis. Its geographic scope is narrowed to a particular region and a sample size of 150 respondents, which might not be representative of larger migration trends within Tamil Nadu or India. Language and cultural subtleties in open-ended questions can also influence the accuracy of sentiment analysis software such as VADER and TextBlob. Future studies can extend to other states or districts for comparative purposes and take a longitudinal design to map changes in the experiences of migrants over a period of time. In addition, future research can explore the influence of digital platforms, remittances, informal networks, and policy awareness on migration choices in more depth, integrating gender-oriented views and post-return reintegration experiences.

References

*B*handari Prasad P. *Journal of Tikapur Multiple Campus.* J Tikapur Mult Campus. 2022;5(June):152–67

Xiao Y, Miao S, Sarkar C, Geng H, Yi L. Exploring the impacts of housing condition on migrants' mentalhealth in nanxiang, shanghai: A structural equation modelling approach. I*nt J Environ Res Public Health.*2018;15(2):0

14. Handral AR, Anbukkani P, Kumar P. Internal Labour Migration in India: Its Trends and Patterns. *Ann AgricRes*

New Ser [Internet]. 2018;39(2):1–8. Available from: http://www.iesd.org.in/jesd/Journal pdf/ 2019-XV-1 Shankar.S.Kandhare.pdf

Jaccob D. Euro-Mediterranean Security and Cooperation: Immigration Policies and Implications. SSRN

Electron J. 2018;(December 2013).

Keshri K, Bhagat RB. SOCIOECONOMIC DETERMINANTS OF TEMPORARY LABOUR MIGRATION IN

INDIA: A regional analysis. Asian Popul Stud. 2013;9(2):175–95.

Marcu N, Siminica M, Noja GG, Cristea M, Dobrota CE. Migrants' integration on the European labor market: Aspatial bootstrap, SEM and network approach. Sustain. 2018;10(12):1–21.

Marcu N, Siminica M, Noja GG, Cristea M, Dobrota CE. Migrants' integration on the European labor market: Aspatial bootstrap, SEM and network approach. Sustain. 2018;10(12).

Mazumdar I, Agnihotri I. 7 Traversing Myriad Trails: Tracking Gender and Labour Migration across India. 2014;(December):123–51.

Mun HW, Hua NC, Lin YJ, Sern FE. Determinants of Internal Migration for Tertiary Students: Structural Equation Modelling Study in Klang Valley, Malaysia. Asian Dev Policy Rev. 2022;10(2):133–45.

Pietrzak MB, Żurek M, Matusik S, Wilk J. Application of Structural Equation Modeling for Analysing Internal Migration Phenomena in Poland. Przegląd Stat. 2012;59(z. 4):487–503.

John S. SOCIO-POLITICAL PROBLEMS IN INDIA WITH SPECIAL REFERENCE TO FARMERS'SUICIDE. 2006;15(04):11–6.

Rajan SI, Keshri K, Deshingkar P. Understanding Temporary Labour Migration Through the Lens of Caste: India Case Study. IMISCOE Res Ser. 2023;Part F802:97–109.

Pradesh U. Growth Prospects of Indian Infrastructure with developing Iron and Steel Sector. 2017;16(5):13–20.

Muthusamy A, Jansi Rani P. FDI, GDP, and CO<inf>2</inf> emission: ARDL bound cointegration relationship examination. Int J Recent Technol Eng. 2019;8(2 Special Issue 10).

Rao S, Andini V. Modelling student migration to Karnataka for Higher Education using a partial least square structural equation model. High Educ Q. 2019;73(2):135–52.

Shah A, Lerche J. Migration and the invisible economies of care: Production, social reproduction and seasonal migrant labour in India. Trans Inst Br Geogr. 2020;45(4):719–34.

Temporin F. A multilevel structural equation modelling approach to study segregation of deprivation: an application to Bolivia. Qual Quant [Internet]. 2019;53(3):1657–74. Available from: https://doi.org/10.1007/s11135-018-00832-y

Zanabazar A, Kho NS, Jigjiddorj S. The Push and Pull Factors Affecting the Migration of Mongolians to the Republic of South Korea. SHS Web Conf. 2021;90(March):01023.

Wang Y, Su Y, Araral EK. Migration and collective action in the commons: application of social-ecological system framework with evidence from China. Ecol Soc. 2022;27(1).

Black R, Adger WN, Arnell NW, Dercon S, Geddes A, Thomas DSG. The effect of environmental change on human migration §. Glob Environ Chang [Internet]. 2020;21(2011):S3–11. Available from:*h*ttp://dx.doi.org/10.1016/j.gloenvcha.2011.10.001

Qarni A, Billah M, Hussain K, Shah SH, Ahmed W, Alam S, et al. Isolation and Characterization of Phosphate

Solubilizing Microbes from Rock Phosphate Mines and Their Potential Effect for Sustainable Agriculture.

Sustainability [Internet]. 2021 Feb 17;13(4):2151. Available from: https://www.mdpi.com/2071-1050/13/4/2151

Palit N, Chaudhuri A, Mishra N. Humanitarian management strategy for interstate movement of migrant workers in India during COVID-19 pandemic: an optimization based approach. Ann Oper Res [Internet]. 2025

May 14;348(3):1879–924. Available from: https://link.springer.com/10.1007/s10479-023-05199-4

Cheng C, Yu Y. Early Childhood Educators' Practices in Education for Sustainable Development in China: Evidence from Shandong Province. Sustainability [Internet]. 2022 Feb 10;14(4):2019. Available from: https://www.mdpi.com/2071-1050/14/4/2019

Gupta P, Kumar S, Suman RR, Kumar V. Sentiment Analysis of Lockdown in India During COVID-19: A Case Study on Twitter. IEEE Trans Comput Soc Syst [Internet]. 2021 Aug;8(4):992–1002. Available from: https://ieeexplore.ieee.org/document/9301194/

Khan A, Arokkiaraj H. Challenges of reverse migration in India: a comparative study of internal and international migrant workers in the post-COVID economy. Comp Migr Stud [Internet]. 2021 Dec 3;9(1):49. Available from: https://comparativemigrationstudies.springeropen.com/articles/10.1186/s40878-021-00260-2

Vasudevan A, Rani PJ, Raja N, Nedumaran G, Arokiasamy ARA, Qian C. Fintech for sustainable agriculture: insights from Tamil Nadu, India. Front Sustain Food Syst [Internet]. 2025 Jul 22;9(July). Available from: https://www.frontiersin.org/articles/10.3389/fsufs.2025.1614553/full

Jansi Rani P. Impact of Demonetization on Private Life Insurance Companies in India. IJSRR [Internet]. 2018(3):2178–86. Available from: www.ijsrr.org

Jansi Rani P. International Journal of Scientific Research and Reviews Impact of Demonetization on Private

Life Insurance Companies in India. IJSRR [Internet]. 2018(3):2178–86. Available from: www.ijsrr.org

Li L, Cai X. Structural Equation Model Analysis of Urban Public Service Satisfaction. 2018;155(Ichssd 2017):66–73.

Mahasamudram G. GLOBALISATION AND LABOUR MIGRATION FROM INDIA/ : SOME ECONOMIC GLOBALISATION AND LABOUR MIGRATION FROM INDIA/ : 2021;(July).