

Migration Intentions Among Mathematics Educators in Higher Education Institutions (HEIs) in Batangas, Philippines

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Abstract

This study examined the migration intentions of mathematics educators in higher education institutions (HEIs) in Batangas, Philippines, during Academic Year 2025–2026. Using a descriptive-correlational design, data were gathered from 150 mathematics educators through a researcher-developed questionnaire. Descriptive statistics, Spearman's rank correlation, Chi-square tests with Cramér's V, and Partial Least Squares Structural Equation Modeling (PLS-SEM) were employed to examine the relationships among institutional, individual, and external factors; job satisfaction; selected demographic characteristics; and migration intention. Results revealed that individual and external factors emerged as the strongest predictors of migration intention, whereas institutional factors, job satisfaction, and demographic variables exerted comparatively weaker influence. Notably, while educators reported strong consideration of working abroad, their corresponding preparatory actions remained only moderate, pointing to a discernible gap between aspiration and action. The structural model accounted for 29.3% of the variance in migration intention, indicating meaningful explanatory power despite the multifaceted nature of migration decision-making. These findings suggest that migration intention among mathematics educators is shaped less by dissatisfaction with current institutional conditions and more by external opportunities and personal aspirations for growth. Accordingly, HEIs and policymakers are encouraged to strengthen career advancement pathways, provide greater global exposure, and design targeted retention strategies that respond to educators' professional ambitions, thereby mitigating the risk of workforce attrition in mathematics education.

Keywords: migration intention, mathematics educators, higher education institutions, PLS-SEM

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Introduction

The international migration of educators has become an increasingly significant challenge for higher education systems worldwide. Rather than representing a simple response to job dissatisfaction, migration is now recognized as a complex career decision shaped by economic opportunities, institutional conditions, professional aspirations, and broader structural forces within a globalized academic labor market (Haddad et al., 2021). The migration of mathematics and other STEM educators is particularly concerning because these disciplines are fundamental to scientific innovation, technological advancement, and national development. Persistent teacher shortages in developed countries have intensified international recruitment from developing nations, accelerating global competition for qualified educators. UNESCO (2024) estimates that an additional 44 million teachers will be needed worldwide by 2030, with teacher attrition accounting for more than half of this shortage, thereby increasing international demand for experienced educators.

The Philippines is deeply embedded in this global migration system. Teacher migration has evolved from occasional labor mobility into a sustained pattern of overseas employment driven by both economic opportunities and professional advancement. National statistics indicate that approximately 1,500 teachers migrated annually for overseas employment between 2013 and 2017 (Philippine Statistics Authority [PSA], 2023), reflecting a continuing trend rather than isolated cases. The CALABARZON region, one of the country's leading sources of overseas Filipino workers, accounted for 16.35% of all land-based deployments during the third quarter of 2024 (PSA, 2023). Within this region, Batangas Province serves as an important educational hub, hosting 63 higher education institutions (Commission on Higher Education [CHED], 2024). However, local institutions have increasingly experienced the loss of mathematics educators to overseas employment, particularly in the post-pandemic period, creating challenges for faculty retention, institutional continuity, and long-term educational quality.

Previous research has consistently identified institutional and economic conditions as major determinants of educator migration. Low salaries, heavy teaching workloads, limited career advancement, and inadequate organizational support act as important push factors, whereas higher compensation, stronger research environments, professional recognition, and better career opportunities abroad serve as powerful pull factors (Alicamen & Becamon, 2022; Narvaza, 2023; Yaw, 2022). Beyond institutional influences, individual aspirations, family considerations, and long-term career goals also shape migration decisions. Job satisfaction has similarly been associated with migration intentions, with higher satisfaction generally reducing educators' willingness to seek employment abroad (Ersoy, 2024; Malinao & Agustin, 2023). Demographic characteristics, particularly age, family status, and employment status, further influence migration decisions by affecting individuals' willingness and capacity to relocate internationally (Dennison, 2022; Dibeh et al., 2020; Iştekli, 2025).

This study is primarily grounded in the Push–Pull–Mooring (PPM) framework (Moon, 1995), which explains migration as the result of interacting forces that encourage departure, attract individuals to alternative destinations, and either facilitate or constrain movement. The framework is complemented by Lee's Migration Theory (Lee, 1966), Human Capital Theory (Becker, 1964; Sjaastad, 1962), Herzberg's Two-Factor Theory (Herzberg et al., 1959), the Theory of Planned Behavior (Ajzen, 1991), Network Theory (Massey et al., 1993), the New Economics of Labor Migration (Stark & Bloom, 1985), Job Embeddedness Theory (Mitchell et al., 2001), and Life Course Theory (Elder, 1994). Together, these perspectives provide a

comprehensive explanation of how institutional conditions, personal motivations, social relationships, and economic opportunities interact to shape educators' migration intentions. Accordingly, this study conceptualizes migration intention as being influenced by four latent constructs: institutional factors, individual factors, external factors, and job satisfaction.

Despite the growing literature on teacher migration, several important gaps remain. First, relatively few studies focus specifically on mathematics educators despite their critical role in strengthening STEM education and national competitiveness. Second, Philippine studies have largely employed descriptive or qualitative approaches, limiting their ability to examine the complex relationships among multiple determinants of migration intentions. Advanced multivariate techniques such as Partial Least Squares Structural Equation Modeling (PLS-SEM) enable simultaneous examination of these interrelationships (Hair et al., 2017; Henseler et al., 2009). Third, empirical evidence from provincial higher education contexts such as Batangas Province remains limited despite increasing migration pressures experienced by local institutions.

To address these gaps, this study employed PLS-SEM to examine how institutional factors, individual factors, external factors, and job satisfaction influence migration intentions among mathematics educators in higher education institutions in Batangas Province, Philippines. By integrating multiple theoretical perspectives within a single structural model, the study contributes to the growing literature on educator mobility while providing evidence to inform faculty retention strategies and higher education workforce policy.

Specifically, this study sought to answer the following research questions:

1. What is the demographic profile of mathematics educators in higher education institutions in Batangas Province in terms of age, family status, and employment status?
2. What is the extent of migration intentions among these educators?
3. What is the level of perceived influence of institutional factors, individual factors, external factors, and job satisfaction on migration intentions?
4. Is there a significant relationship between demographic characteristics, institutional factors, individual factors, external factors, job satisfaction, and migration intentions?
5. What structural model best explains migration intentions among mathematics educators in higher education institutions in Batangas Province?

Methods

This study employed a quantitative descriptive–correlational research design to examine the determinants of migration intentions among mathematics educators. The descriptive component profiled institutional, individual, and external factors, together with job satisfaction, whereas the correlational component examined the relationships between these predictors and migration intention without manipulating any variables (Creswell & Creswell, 2018). The quantitative approach enabled objective measurement of observed and latent constructs through standardized instruments and statistical analyses. The design was particularly appropriate for Partial Least Squares Structural Equation Modeling (PLS-SEM), which permits the simultaneous analysis of multiple interrelated predictors of migration intention.

The study population comprised mathematics educators employed in Commission on Higher Education (CHED)-recognized higher education institutions in Batangas Province,

Philippines. Eligible participants were full-time, contractual, and part-time faculty members teaching mathematics or mathematics-related courses who had at least one year of higher education teaching experience. Faculty members serving exclusively in administrative positions, teaching outside mathematics, on extended leave, or employed outside Batangas Province were excluded.

Sample size was estimated using power analysis recommendations for PLS-SEM (Hair et al., 2017) assuming 80% statistical power, $\alpha = .05$, a medium effect size ($f^2 = .15$), and four predictors. The minimum required sample was 85 respondents. To account for clustering of educators within institutions, the estimate was adjusted using a design effect of 1.35, resulting in a target sample of 115 respondents.

The questionnaire measured institutional factors, individual factors, external influences, job satisfaction, and migration intention using multi-item latent constructs derived from the International Teacher Mobility Survey (Caravatti et al., 2014) and the Job Satisfaction Survey (Spector, 1985). All substantive items were measured on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Items were randomized to minimize order effects and response bias (Stefkovich & Kmetty, 2022).

Content validity was established through two rounds of expert review following Lynn (1986). The final instrument achieved an I-CVI of 1.00 and an S-CVI/Ave of 1.00, exceeding recommended thresholds (Polit & Beck, 2006). A pilot study involving 10 mathematics educators demonstrated satisfactory internal consistency (Cronbach's $\alpha = .861-.896$; McDonald's $\omega = .866-.901$). Reliability and validity were reassessed using the final study sample during PLS-SEM analysis.

Data collection was carried out via an online structured questionnaire administered through Google Forms. Invitations were distributed using institutional and personal email addresses following a multi-wave strategy to maximize response rates (Dillman et al., 2014). The researcher also personally visited selected HEIs to facilitate survey administration and enhance participation through direct engagement. Prior to completing the questionnaire, all respondents were provided with a written informed consent form outlining the study's purpose, scope, and procedures, as well as their rights to decline participation or withdraw at any time without penalty. Ethical clearance was obtained from the Institutional Research Ethics Committee before data collection commenced, and all procedures complied with the Data Privacy Act of 2012.

Data were analyzed using R. Descriptive statistics summarized respondents' demographic characteristics and the distributions of all study variables. Spearman's rank-order correlation assessed bivariate associations among the latent constructs because the questionnaire responses were ordinal. Associations between demographic variables and migration intention were examined using chi-square tests of independence and Cramér's V. The hypothesized relationships among latent variables were subsequently evaluated using Partial Least Squares Structural Equation Modeling (PLS-SEM), including assessment of the measurement model and the structural model.

Results

Demographic Profile of Mathematics Educators

Table 1 presents the demographic profile of the 150 mathematics educators who participated in the study. Respondents were predominantly mid-career professionals, with a mean age of 39.59 years ($SD = 8.80$) and the largest proportion falling within the 36–40 age bracket (25.33%). Early-career entrants (25–30 years old) comprised only 12.67% of the sample, while those under 24 or over 56 represented minimal proportions, reflecting a generally mature and professionally established workforce. Most respondents were married with children (42.0%) or single (32.0%), and the majority held full-time permanent positions (64.0%).

Table 1
Demographic Profile of Mathematics Educators

Profile	Frequency	Percentage
Age		
≤ 24 years old	2	1.33
25-30 years old	19	12.67
31-35 years old	29	19.33
36-40 years old	38	25.33
41-45 years old	31	20.67
46-50 years old	14	9.33
51-55 years old	10	6.67
56-60 years old	1	0.67
≥ 61 years old	6	4.00
Family Status		
Single	48	32.00
Married, no children	13	8.67
Married, with children	63	42.00
Single parent	15	10.00
Divorced/Separated	6	4.00
Widowed	5	3.33
Employment Status		
Full-time Permanent	96	64.00
Full-time Temporary	14	9.33
Full-time Contractual	25	16.67
Part-time	15	10.00

Source: Original Research Results

Extent of Migration Intentions

Table 2 presents the extent of migration intentions across three progressive indicators reflecting cognitive consideration, exploratory behavior, and preparatory action. Educators strongly agreed that they were seriously considering working abroad, indicating high migration intention on this indicator. Exploratory and preparatory behaviors, however, both registered only moderate intention, yielding an overall moderate migration intention rating. This pattern reveals a notable divergence between educators' cognitive readiness to migrate and their actual behavioral activation—an aspiration–action gap.

Table 2*Extent of Migration Intentions Among Mathematics Educators*

Indicators	MFR	DR	Interpretation
I am seriously considering working in another country soon. (MI1)	4	A	High MI
I have taken steps to explore professional opportunities abroad. (MI2)	3	NA nor D	Moderate MI
I am preparing the requirements needed for overseas employment. (MI3)	3	NA nor D	Moderate MI
Overall	3	NA nor D	Moderate MI

Source: Original Research Results. *Note:* MFR = Most Frequent Response. Scale: 5 = Strongly Agree, 4 = Agree, 3 = Neither Agree nor Disagree, 2 = Disagree, 1 = Strongly Disagree.

Level of Perceived Influence of Factors on Migration Intentions

Table 3 summarizes the perceived influence of institutional, individual, external, and job satisfaction factors on migration intention. Individual and external factors showed uniformly high perceived influence across all respective sub-indicators.

Table 3*Level of Perceived Influence of Factors on Migration Intentions*

Factor/Indicator	MFR	DR	Interpretation
<i>Institutional</i>			
Teaching Workload (INSF1)	4	A	High perceived influence on MI
Administrative Support (INSF2)	3	NA nor D	Moderate perceived influence on MI
Work Environment (INSF3)	4	A	High perceived influence on MI
Organizational Culture (INSF4)	3	NA nor D	Moderate perceived influence on MI
Overall	4	A	High perceived influence on MI
<i>Individual</i>			
Career Advancement Goals (INDF1)	4	A	High perceived influence on MI
Family Welfare (INDF2)	4	A	High perceived influence on MI
Long-Term Goals (INDF3)	4	A	High perceived influence on MI
Cultural Adaptability (INDF4)	4	A	High perceived influence on MI
Overall	4	A	High perceived influence on MI
<i>External</i>			
Salary Differentials (EXTF1)	4	A	High perceived influence on MI
Professional Recognition (EXTF2)	4	A	High perceived influence on MI
Research Opportunities (EXTF3)	4	A	High perceived influence on MI
Social Network (EXTF4)	4	A	High perceived influence on MI
Overall	4	A	High perceived influence on MI
<i>Job Satisfaction</i>			
Teaching Satisfaction (JS1)	4	A	High perceived influence on MI
Emotional Fulfilment (JS2)	3	NA nor D	Moderate perceived influence on MI
Stress Level (JS3)	4	A	High perceived influence on MI
Institutional Pride (JS4)	3	NA nor D	Moderate perceived influence on MI
Overall	4	A	High perceived influence on MI

Source: Original Research Results

Institutional factors and job satisfaction each presented a mixed pattern: teaching workload and work environment, and teaching satisfaction and stress level, were rated as highly influential, whereas administrative support, organizational culture, emotional fulfilment, and institutional pride were rated as only moderately influential. Despite this internal variation, all four factor categories registered a high overall rating, indicating a generally strong perceived influence on migration intention.

Relationships Between Constructs and Migration Intentions

Table 4 presents the relationships between the study constructs and migration intention. Spearman's rank correlation revealed statistically significant positive associations between migration intention and external factors ($\rho = .429$, $p < .001$), individual factors ($\rho = .382$, $p < .001$), and institutional factors ($\rho = .214$, $p < .01$). Job satisfaction, by contrast, showed a significant negative association ($\rho = -.191$, $p < .05$), suggesting that lower job satisfaction corresponds with greater migration intention. Chi-square tests with Cramér's V indicated that none of the demographic variables—age, family status, and employment status—were significantly associated with migration intention, and these variables were accordingly excluded from the structural model.

Table 4

Relationships Between Constructs and Migration Intentions

Construct	ρ	p-value
Institutional Factors	0.214**	0.009
Individual Factors	0.382***	0.000
External Factors	0.429***	0.000
Job Satisfaction	-0.191*	0.019
Age	0.249	0.246
Family Status	0.162	0.731
Employment Status	0.155	0.545

Source: Original Research Results. *Note:* *** ($p < .001$), ** ($p < .01$), * ($p < .05$)

PLS-SEM Results

Given the absence of statistically significant associations between the demographic variables and migration intention, age, family status, and employment status were excluded from the structural model.

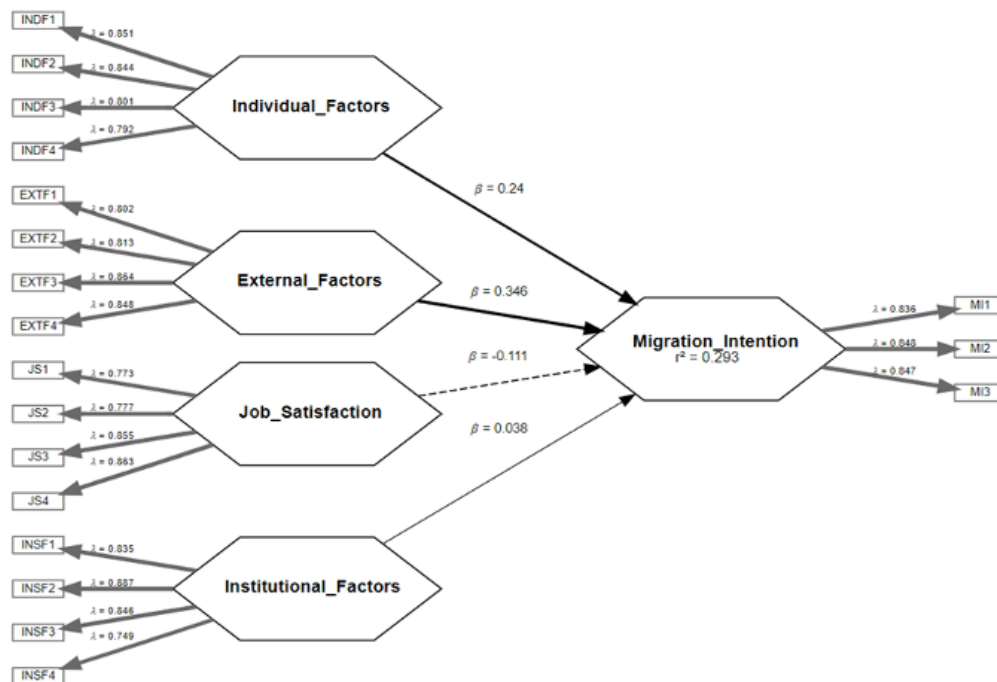
The measurement model (Figure 1) demonstrated strong psychometric properties. All indicator loadings ranged from 0.779 to 0.867, exceeding the recommended 0.70 threshold, while variance inflation factor (VIF) values ranged from 1.847 to 2.520, well below the conservative ceiling of 5.0, confirming the absence of problematic multicollinearity. Internal consistency reliability was supported by Cronbach's alpha values ranging from 0.798 to 0.857, composite reliability (ρ_c) ranging from 0.881 to 0.902, and ρ_A ranging from 0.799 to 0.877, all within the acceptable 0.70–0.95 range. Convergent validity was established, with Average Variance Extracted (AVE) values exceeding 0.50 for all constructs (0.674–0.712). Discriminant validity was confirmed through the Fornell–Larcker criterion, with the square roots of AVE (0.821–0.844) exceeding corresponding inter-construct correlations, and

through Heterotrait-Monotrait (HTMT) ratios ranging from 0.236 to 0.558, all below the conservative 0.85 threshold.

The structural model (Figure 1) explained 29.3% of the variance in migration intention ($R^2 = 0.293$; Adjusted $R^2 = 0.274$). Given the multifaceted and context-dependent nature of migration decision-making, this level of explained variance represents substantial explanatory power (Cohen, 1988).

Figure 1

Structural Model of Migration Intentions Among Mathematics Educators in HEIs



Source: Original Research Results

Discussion

Demographic Characteristics and Their Contextual Role

The demographic profile of mathematics educators in Batangas higher education institutions provides important context for understanding migration intentions. The predominance of mid-career educators suggests a workforce that is actively evaluating long-term professional growth, financial stability, and career advancement, consistent with studies indicating that educators at this career stage are more likely to reassess employment opportunities in pursuit of better prospects (Tschopp et al., 2016). Furthermore, the substantial proportion of married respondents with children highlights that migration decisions are shaped not only by individual aspirations but also by household considerations. This finding supports the New Economics of Labor Migration, which conceptualizes migration as a family-based strategy to improve economic security and diversify household income rather than as an exclusively individual decision (Stark & Bloom, 1985).

Although most respondents held permanent appointments, employment security alone did not appear sufficient to discourage migration intentions. Previous research suggests that stable employment may reduce uncertainty but does not necessarily offset the influence of limited

compensation, heavy workloads, or constrained career advancement opportunities (Castellacci & Viñas-Bardolet, 2021). Thus, permanent employment should not be interpreted as an assurance of workforce retention when more attractive professional opportunities exist elsewhere.

Despite these demographic patterns, age, family status, and employment status were not significantly associated with migration intentions. This finding indicates that demographic characteristics primarily provide the context within which migration decisions are made rather than directly determining educators' intentions to migrate. Consistent with the Push–Pull–Mooring framework (Moon, 1995), these characteristics function as mooring factors that may influence the timing or feasibility of migration without serving as its principal drivers. Consequently, migration intentions appear to be distributed across the mathematics educator workforce rather than concentrated within particular demographic groups. This suggests that faculty retention initiatives should address the broader institutional and professional conditions influencing migration instead of focusing solely on specific demographic segments.

Extent of Migration Intentions: A Pre-migration State

The disparity between high cognitive intention and only moderate behavioral preparation suggests that many mathematics educators are in a pre-migration state, where migration is being seriously considered but has not yet progressed to concrete action. This finding is consistent with Lee's (1966) distinction between migration aspirations and actual migration behavior and supports the Push–Pull–Mooring (PPM) framework (Moon, 1995), which proposes that mooring factors—such as family responsibilities, institutional ties, and practical constraints—may delay or inhibit the translation of migration intentions into action. Similar intention–behavior gaps have been reported among Filipino teachers (Tantay et al., 2024) and healthcare professionals (Ohene-Botwe et al., 2025), suggesting that this transitional stage is characteristic of skilled professionals in developing countries.

The moderate overall level of migration intention should therefore not be interpreted as evidence of workforce stability. Rather, it reflects a transitional state in which educators remain open to migration but have not yet initiated concrete plans. According to the Theory of Planned Behavior (Ajzen, 1991), behavioral intentions may rapidly develop into action when favorable opportunities arise and perceived barriers are reduced. Consequently, external events such as attractive overseas employment offers, the migration of professional peers, changes in institutional policies, or worsening working conditions may accelerate the progression from contemplation to active migration (Soto Nishimura & Czaika, 2024).

These findings highlight the importance of timely institutional intervention. Retention strategies are likely to be most effective while educators remain in this pre-migration stage, before migration intentions evolve into concrete job search behaviors and relocation plans. Proactive measures that enhance career development opportunities, improve working conditions, and strengthen organizational commitment may therefore reduce the likelihood that migration aspirations translate into actual workforce losses.

Perceived Influence of Migration Determinants

The consistently high perceived influence of institutional, individual, external, and job satisfaction factors indicates that mathematics educators view migration decisions as the

product of multiple interacting influences rather than a single dominant cause. This finding supports the multidimensional nature of migration proposed by the Push–Pull–Mooring (PPM) framework (Moon, 1995), in which migration intentions emerge from the combined effects of workplace conditions, personal aspirations, external opportunities, and contextual constraints.

Among the institutional factors, teaching workload and work environment were perceived as more influential than administrative support and organizational culture. This pattern is consistent with Herzberg's Two-Factor Theory (Herzberg et al., 1959), suggesting that immediate working conditions exert a stronger influence on migration considerations than broader organizational characteristics. It also reflects evidence that excessive job demands and limited workplace resources contribute to professional strain and increase intentions to seek employment elsewhere (Nair et al., 2022; Narvaza, 2023).

The uniformly high ratings across all individual and external factors indicate that migration is driven not only by dissatisfaction with current employment but also by proactive career aspirations. Career advancement, family welfare, long-term goals, salary differentials, professional recognition, research opportunities, and overseas professional networks were all perceived as important influences, reinforcing previous findings that skilled migration is motivated by both personal ambitions and the attractiveness of international opportunities (Becker, 1964).

A more nuanced pattern emerged for job satisfaction. While respondents reported high influence for teaching satisfaction and work-related stress, emotional fulfillment and institutional pride were rated only moderately. This suggests that educators remain strongly committed to the profession of teaching but feel less attached to their employing institutions. Such partial organizational attachment is consistent with Job Embeddedness Theory (Mitchell et al., 2001), which proposes that weaker organizational connections reduce the costs of leaving an institution. Consequently, educators who continue to value teaching yet perceive greater professional opportunities abroad may be more willing to transfer their expertise to better-resourced educational systems without experiencing substantial professional or personal disruption.

Overall, these findings indicate that migration intentions among mathematics educators arise from the interaction of institutional conditions, individual aspirations, global opportunities, and organizational attachment. Faculty retention efforts should therefore extend beyond improving workplace conditions alone and incorporate strategies that strengthen career development, professional recognition, research support, and institutional commitment. Addressing only one dimension of the migration process is unlikely to reduce migration intentions when multiple influences operate simultaneously.

Relationships Between Migration Determinants and Migration Intention

The significant positive correlations between institutional factors ($\rho = .214$), individual factors ($\rho = .382$), external factors ($\rho = .429$), and migration intentions indicate that mathematics educators' migration intentions are associated with multiple interrelated influences rather than a single determinant. Among these, external factors demonstrated the strongest association, suggesting that opportunities such as higher salaries, professional recognition, research opportunities, and established overseas networks are closely linked to educators' intentions to migrate. This finding is consistent with migration theories

emphasizing the influence of external pull factors (Harris & Todaro, 1970; Lee, 1966) and with previous studies reporting that international career opportunities remain a major driver of skilled migration (Ohene-Botwe et al., 2025; Zulfiu Alili et al., 2023).

Job satisfaction exhibited a significant negative correlation with migration intentions, indicating that educators who reported higher levels of job satisfaction were generally less inclined to consider overseas employment. This finding supports previous evidence that job satisfaction serves as a protective factor against turnover and migration intentions (Ersoy, 2024). However, the relatively weak correlation suggests that improving job satisfaction alone may be insufficient to offset the influence of stronger external opportunities and individual career aspirations. This finding reinforces the view that migration decisions result from the combined influence of workplace experiences and opportunities beyond the employing institution.

In contrast, age, family status, and employment status were not significantly associated with migration intentions. This finding suggests that demographic characteristics primarily provide the context within which migration decisions are made rather than directly influencing educators' intentions to migrate. Consistent with the Push–Pull–Mooring framework (Moon, 1995), demographic characteristics may shape the feasibility or timing of migration without acting as independent determinants of migration intention.

Taken together, these findings reinforce the multidimensional nature of educator migration. Migration intentions appear to be associated with the interaction of institutional conditions, individual aspirations, external opportunities, and job satisfaction rather than any single factor in isolation. While the correlation analysis identifies the strength and direction of these relationships, the structural model provides a more comprehensive assessment of the independent contribution of each construct when considered simultaneously.

Structural Model: External and Individual Factors as Primary Drivers

The PLS-SEM analysis provides a more comprehensive understanding of migration intentions by examining the unique contribution of each predictor while controlling for the effects of the others. The structural model explained 29.3% of the variance in migration intention ($R^2 = .293$), indicating substantial explanatory power for a behavioral outcome influenced by multiple personal, organizational, and contextual factors. The unexplained variance suggests that additional influences, such as individual psychological characteristics, recruitment opportunities, professional experiences, or broader economic conditions, may also contribute to migration decisions and warrant further investigation.

Among the four latent constructs, only external factors ($\beta = .346$, $p < .001$; $f^2 = .142$) and individual factors ($\beta = .240$, $p < .001$; $f^2 = .068$) exerted significant direct effects on migration intention. The stronger influence of external factors highlights the importance of salary differentials, professional recognition, research opportunities, and overseas networks in shaping educators' intentions to migrate. This finding supports migration theories that emphasize the role of external pull forces in skilled migration (Harris & Todaro, 1970; Lee, 1966) and is consistent with previous studies identifying international career opportunities as a major determinant of educator mobility (Ohene-Botwe et al., 2025). The significant effect of individual factors further suggests that migration is not solely a response to unfavorable institutional conditions but also reflects proactive career planning, family aspirations, and

long-term professional goals, consistent with Human Capital Theory (Becker, 1964) and the Theory of Planned Behavior (Ajzen, 1991).

In contrast, institutional factors and job satisfaction did not demonstrate statistically significant direct effects after accounting for the influence of the other predictors. Although both constructs were significantly associated with migration intentions in the bivariate analysis, their effects were no longer significant in the structural model, suggesting that their influence may be shared with or overshadowed by stronger external and individual determinants. These findings should not be interpreted as evidence that institutional conditions and job satisfaction are unimportant. Rather, they indicate that, within the present model, they do not independently explain migration intentions beyond the effects of external opportunities and individual motivations. Their inclusion remains theoretically justified because migration decisions are widely recognized as multidimensional processes involving organizational, personal, and environmental influences (Hair et al., 2021; Lee, 1966; Mitchell et al., 2001).

The contrast between the correlation and structural model results provides an important theoretical contribution. While institutional factors and job satisfaction are associated with migration intentions, external opportunities and individual aspirations emerge as the most influential predictors when all factors are considered simultaneously. This finding suggests that improving workplace conditions alone may not be sufficient to reduce migration intentions if substantial disparities in career opportunities, professional recognition, and financial rewards continue to exist between domestic and international academic environments. Consequently, effective faculty retention strategies should extend beyond institutional improvements to include stronger career development pathways, enhanced research support, competitive compensation, and broader opportunities for professional growth.

Future research should examine whether institutional factors and job satisfaction influence migration intentions indirectly through mediating or moderating mechanisms. Longitudinal studies would also provide valuable insights into how educators' migration intentions evolve over time and whether changes in institutional conditions alter the relative influence of external opportunities and individual aspirations.

Conclusion

The findings demonstrate that migration intentions among mathematics educators are not determined by a single factor but emerge from the interplay of personal aspirations, institutional experiences, and external opportunities. Although institutional conditions and job satisfaction remain important considerations, the stronger influence of external opportunities and individual motivations suggests that retaining mathematics educators requires more than improving the workplace environment alone. As global demand for qualified educators continues to grow, higher education institutions must adopt proactive and comprehensive retention strategies that support career advancement, research productivity, professional recognition, and competitive employment conditions. Ultimately, strengthening the capacity of institutions to retain mathematics educators is essential not only for sustaining a high-quality teaching workforce but also for ensuring the long-term development of mathematics education and higher education in the Philippines.

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Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

The author declares that Claude, an AI-assisted language model developed by Anthropic, was used solely for proofreading and refining the language of the manuscript, limited to correcting grammatical errors and improving clarity. All ideas, analyses, and findings are the author's own original work.

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