

## Career Development and Employee Retention: Addressing Brain Drain in Nepal

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### Abstract

Another challenge facing Nepal is brain drain, especially among skilled and professional groups, which negatively impacts organizational and HRD building. Although most research deals with economic push and pull factors, little research explores how internal HR practices affect brain drain intention among employees. This study aims to examine whether opportunities for career development, such as training quality, mentoring support, and clarity in promotion opportunities, reduce brain drain intention among skilled and professional groups in Nepal. The study also tests whether job satisfaction and affective commitment act as mediating factors in this relationship and whether perceived foreign opportunities reduce these relationships. A quantitative explanatory research design was used for this study. Primary data was collected from 300 skilled and professional groups in banking, ICT, healthcare, higher education, and manufacturing industries. The analysis was conducted using descriptive statistics, correlations, regression analysis, and bootstrapped mediation and moderation tests. The results indicated that good opportunities for career development enhance job satisfaction and affective commitment. These two factors reduce the intention to migrate abroad. However, attractive foreign job opportunities reduce this protective effect. The study concludes that brain drain intention in organizations can be reduced through the establishment of transparent promotion systems, mentoring, and skill-oriented training.

*Keywords: Brain drain, Career development opportunities, Job satisfaction, Affective commitment, Employee retention, Nepal*

### Introduction

Many a morning in Nepal is like this: families are saying their goodbyes, a nurse is off to the UK, an engineer is surfing the internet for job opportunities abroad, and a security guard is getting ready for work in the Gulf. Such a scene is not an isolated occurrence but rather a part of a larger phenomenon often termed a brain drain. The problem, as early research suggested, is a loss of human capital as the country's pool of talented and trained people diminishes, causing a slowdown in the country's learning and growth process (Watanabe, 1969).

Yet the problem is not just a macro-level issue but is also a micro-level concern in the workplace, where the employee is often uncertain about career progress, mentoring opportunities are lacking, and the promotion process is unclear. Research on the subject of international migration suggests that the flow of skilled workers is not just driven by wages but is significantly influenced by the responses of these individuals to credible career opportunities, job recognitions, safety, and the expectation of career progress (Gibson and McKenzie, 2011; Bhardwaj and Sharma, 2022).

Similar structural issues have been highlighted in other research undertaken in Nepal. Issues such as poor career prospects, few advanced positions, lack of investment in research and development, and unclear managerial practices have been highlighted as issues. These issues exert pressure that prompts individuals to seek opportunities elsewhere (Poudel and Shrestha, 2024; Pokhrel et al., 2025).

Another issue that has been highlighted is the use of appropriate terms. It has been highlighted that the real problem faced by Nepal is that of labour drain as opposed to brain drain. The reason for this is that many low and semi-skilled labourers emigrate to other countries. However, the loss of skilled manpower is still of great concern in areas where such skills are rare (A. Dahal, 2024). The lack of skilled labour in hospitals, universities, engineering companies, and financial institutions is of great concern.

Studies have revealed that the intention to migrate is a function of work experience in the workplace. Employees are likely to be dissatisfied and have a stronger intention to migrate when they do not see opportunities for advancement and learning in the workplace. The organizational factors that are likely to keep the employees despite the availability of opportunities elsewhere include career development and management support.

Several empirical studies have been done on the subject. Research among Nepali youth revealed that the intention to migrate increases when the migrant population perceives strong economic benefits in the host country, has higher educational qualifications, and has family links in the host country (Joshi and Dahal, 2024). Among information technology experts, the intention to migrate is influenced by career aspirations and lack of opportunities in the local job market (Jha et al., 2024).

Evidence of this can also be seen in the health sector. A large number of nurses have strong intentions to migrate to other countries because of the poor career development systems and lack of professional growth opportunities within their own domestic hospitals. The lack of mentoring and growth opportunities can lead to strong intentions to migrate (Sandha & Shrestha, 2025). Sector-level research in the health and education sectors confirms that providing career development systems and training can reduce the intention to migrate more than salary increments (Giri et al., 2025; Pokhrel et al., 2025).

Economic theory also supports the macro-level effects of skilled migration. The human capital model of economic growth shows that if educated and skilled personnel migrate to other countries, it can affect the long-term economic growth of their own country. Unless domestic systems can increase the quality of education and career growth opportunities, economic growth may slow down (Wong & Yip, 1999). The above economic theory can also guide the macro-level effects of providing career growth systems in domestic organizations. Even if domestic systems and policies take time to implement changes, each organization can make use of its own career growth systems.

Though much discussion is given to the push and pull factors for migration, little research in Nepal explores how organizational practices affect brain drain intention through psychological factors. Much

research identifies push and pull factors for migration but does not test how certain HR practices affect employee attitudes and migration intentions. Systemic reviews suggest that certain bundles of HR practices, including mentoring, development opportunities, work-life balance, and supportive leadership, should be explored instead of salary alone (Abasilim and Obozekhai, 2024). Other research points to the significance of cultures in the work environment that are based on trust, recognition, and fairness (Baral, 2023). However, how career development opportunities affect migration intention through job satisfaction and affective commitment remains under-explored in Nepali work contexts.

It is unlikely that the decision of the employee to migrate is influenced by a single factor. The decision is a gradual process influenced by the employee's daily work experience. Training programs that do not translate into greater responsibility are a source of frustration. Decisions on promotions that are arbitrary are a source of low employee trust in the organization. Limited opportunities in project leadership are a source of discouragement among ambitious employees. The opposite of these factors is a source of employee satisfaction and emotional attachment to the organization.

Studies on international students have indicated that support in adjusting, professional opportunities, and career prospects are significant in the decision of graduates to return to their home countries or stay in the host country (Baruch et al., 2007). The supportive mechanisms in the organizational context are mentoring systems, professional training, and promotion opportunities.

This study will look into these issues in the context of Nepali organizations. It will focus on skilled employees working in the banking industry, information technology, hospitals, universities, and manufacturing. The research question will be: Does the presence of credible career development prospects affect the intention of employees to seek work abroad? It will look into the following aspects: the quality of training, mentoring or sponsorship, and promotion practices and their effects on the intention of employees to migrate abroad through two major psychological processes: job satisfaction and affective commitment.

The research also takes into consideration the fact that the organizations are functioning in a global labor market. Foreign employment opportunities may seem attractive due to the higher salary, technology, and the international environment. Therefore, the research will also look into the perceived foreign opportunity attractiveness as a moderator. It is believed that if the employees are highly convinced that foreign employment opportunities are accessible and attractive, the relationship between satisfaction and commitment and migration intention may be weakened, but it may not be completely eliminated.

The research will seek to answer four questions. First, does the presence of more career development opportunities reduce the intention of brain drain? Second, does job satisfaction and affective commitment mediate the relationship between career development opportunities and migration intention? Third, does perceived foreign opportunity attractiveness moderate the relationship between

the two variables? Fourth, does the relationship exist even when controlling for pay fairness and work-life balance?

This study makes both theoretical and practical contributions. The theoretical contribution of this study is that it links human resource development practices to migration decisions through affective factors such as satisfaction and commitment (Baral, 2023; Abasilim & Obozekhai, 2024; Giri et al., 2025; Gibson & McKenzie, 2011; Watanabe, 1969).

Practically, this study can help organizations that seek to retain their human resource. Organizations can use promotion systems that are transparent and training programs that can help increase the commitment of their human resource to the organization. These can help organizations respond to the global phenomenon of brain drain.

The problem remains complex. Nepal is experiencing both labor drain and brain drain, and both issues are posing different policy challenges for the country (A. Dahal, 2024; Poudel and Shrestha, 2024). However, at the organizational level, this process is immediate and visible. Trained professionals stay in places where growth is felt to be possible and fair. Career growth systems that offer credible growth opportunities may influence whether individuals are building their future at home or looking for opportunities elsewhere.

## **Literature Review**

As the country's "cream of the crop" emigrates, skills cease to add up and what appears is decay in human capital growth: from there, growth ends unless a counter-effect is found to increase the learning capacity. (Watanabe, 1969; Wong and Yip, 1999). This effect was first detected in key trades and publicly faced human capital formation by the earliest inter-country studies, and the growth models made this mechanism: Unless the effect of the increase in educator-student ratios is offset, brain drain will mean that the long-term growth path of skills and production also declines.

Nevertheless, decisions to migrate are not often influenced by wage considerations. Recent syntheses on the subject show that decisions to migrate skilled individuals are influenced by opportunity maps that include career progression, learning, research facilities, fairness, and safety and not wages (Gibson & McKenzie, 2011; Bhardwaj & Sharma, 2022). Organizations that make growth salient, like role training and sponsorship, help to alleviate outward intentions because they touch the affective bases that individuals feel.

In the case of Nepal, the push-pull texture is ongoing. The push factors include the texture of job ladders, wage ceilings, political insecurity, curriculum financing, and R&D ceilings, while the pull factors include higher wages, career clarity, safety, and qualifications (Poudel & Shrestha, 2024; Pokhrel, Singh, & Lamichhane, 2025). The youth evidence shows that migration intentions are positively

associated with the economic benefits, education level, and family ties of the destination country (Joshi & Dahal, 2024).

Amongst IT workers, intention to emigrate correlates with employment prospects, economic development, education, and personal aspiration, reflecting aspiration thwarted by lack of internal opportunities (Jha, Thakur, Nepal, Chhetri, & Bhandari, 2024). Similar findings are seen in syntheses in the health sector, which also offer HR specialists an edge: career prospects, supervisory support, and safety are key correlates for lower intention to emigrate (Giri et al., 2025). Brain drain vs. labour drain: some suggest the latter is more significant in sheer numbers, but evidence in both sectors indicates brain drain is significant where it occurs (A. Dahal, 2024).

Evidence from hospitals is stark: for nurses, intention to emigrate is extremely high, and exposure to career development and perceptions of favoritism and safety are extremely low (Sandha & Shrestha, 2025).

What is needed is a factory setting in which the voices of all employees receive equal time, appreciation, encouragement and hand-holding trust, as well as the desire to forge ahead together and achieve success in one's own life (Baral, 2023). HRM practices as such may be necessary to promote pro-safety behavior (Monzani, et al., 2023; Hrebiniak, 2020). Development forums and career counseling services for training programs help employees achieve career goals while also sharpening their skills in new subjects at no cost (Brisque & Herbert, 2025). In the end, the only real career is one that gives both job satisfaction and allows you to move upwards (Ezzamel & Stone, 2017). The natural development path at 'home' – really a reference back to one's country of origin. The direction is clear-cut: exercise comfortable non-stage jobs job satisfaction → affective commitment (Ezzamel & Stone, 2019). This is well theorized in adjacent literature. When people feel supported, fit in, and on course, intention to stay rises (Baruch, Budhwar & Khatri, 2007). Translate to original-country businesses and the way is simple: career development opportunities → affective commitment & job satisfaction → intention to emigrate down evidence from twice-daily emigration talks 9 with Nepalese fellow workers overseas confirms that emigrants do not generally want to 'cut off'. Where they have no way to go back' in Nepal, they become yearning migrants; where their new skills are kept up overseas and rewarded for use, they choose to remain abroad (Silwal, 2019).

Reviews with a focus on higher education institutions extend the push factors to include underfunded programs, outdated labs, and underdeveloped research environments, with modernization and career laddering serving as the solution. However, a critical boundary condition is the severity of foreign opportunity. For students and young professionals, the strength of the foreign labor market, ease of adjustment, and support networks all consistently contribute to staying abroad, regardless of push factors (Baruch et al., 2007; Pokharel, Pandey, & Dahal, 2024). Similarly, youth research conducted in Nepal suggests family networks and economic opportunities in foreign countries contribute to migration

intention. What does this suggest for organizational research? In moderation, not magic, career development effects on satisfaction and commitment will be mitigated by the severity of foreign opportunity.

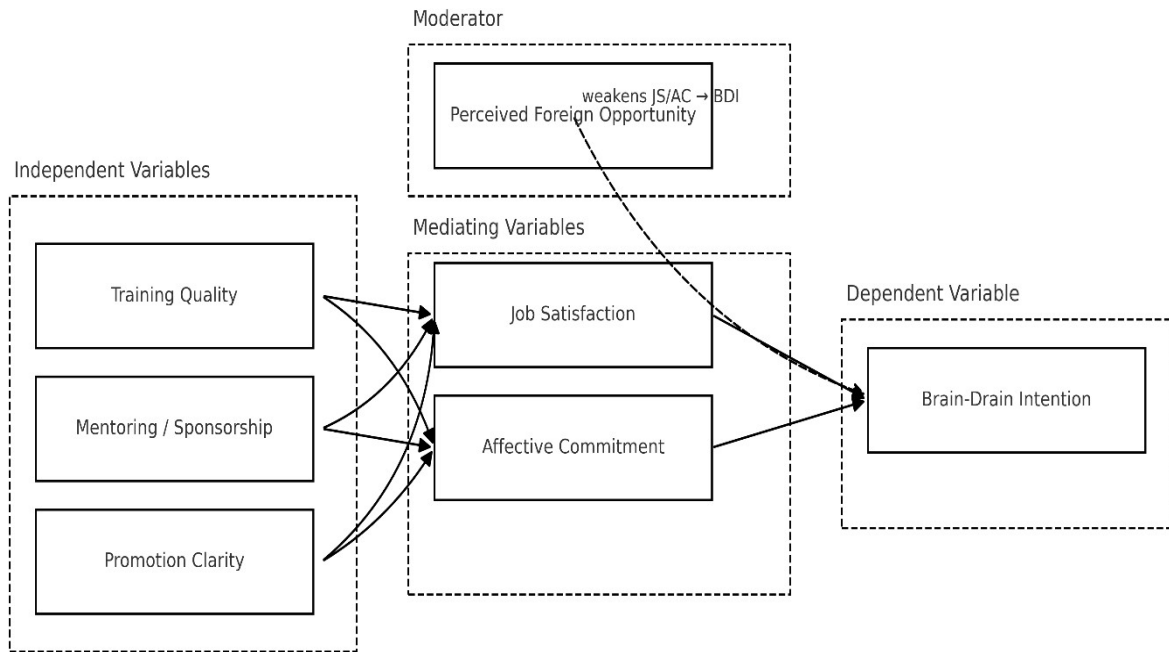
Finally, two points from the editorials bring the seriousness of the issue into perspective. On one hand, we are reminded that remittance does not provide a perfect substitute for skill loss, as the loss of expertise cannot be made up for financially (Mishra, 2023). On the other, the case work from the city level reinforces the need for local career paths that are deemed worthwhile, despite the wait, as a way of mitigating the costs of exit (Panta, 2025).

Synthesis and gap. Through these various approaches, the literature provides support for the following four hypotheses, which can be tested at the level of Nepali organizations: (a) career development opportunities, including aspects of training quality, mentoring or sponsorship, and promotion, should have a positive relationship with job satisfaction and affective commitment; (b) job satisfaction and affective commitment should have a negative relationship with emigration intention; (c) the indirect relationship from career development opportunities to emigration intention, via job satisfaction/affective commitment, should be significant; and (d) the presence of foreign opportunity should attenuate, rather than negate, the above protective relationship (Abasilim & Obozekhai, 2024; Baral, 2023; Baruch et al., 2007; Giri et al., 2025; Joshi & Dahal, 2024).

This is precisely the link that this study seeks to address through the organization-level, Nepal-based test of the model: CDO -> satisfaction/commitment -> brain drain intention, contextualized within the constraint of external pull.

### **Conceptual framework**

The model suggests that career development opportunities within the firm, namely the quality of training, mentoring/sponsorship, and promotion, influence employees' satisfaction with and affective commitment to their job and firm. The stronger these opportunities, the greater satisfaction and commitment; and as satisfaction and commitment go up, so does the intention to leave the country for another job decrease. Note, however, that the outside world is indeed pulling, so we also include foreign opportunity as a moderator: if this is high, the relationship between satisfaction/commitment and emigration intention will be weaker, though not zero. So, the model is: CDO → (Satisfaction, Commitment) → Brain-Drain Intention.



Controls (in analysis, not drawn): Pay fairness, Work-life balance, Age, Tenure, Sector

*Source: Developed by author by taking inspiration from past research done by Babin, & Anderson, 2019; Hayes, 2018*

## Methodology

The research design of the present study employed a quantitative, descriptive, and explanatory approach to examine the influence of career development opportunities (CDO) on brain drain intention (BDI) of skilled employees of Nepalese organizations. The descriptive approach of the study helped the researchers understand the demographic profile of the respondents, whereas the explanatory approach of the study helped the researchers examine the theorized relationship between brain drain intention, where job satisfaction (JS) and affective commitment (AC) mediate the influence of career development opportunities, and the influence of perceived foreign opportunity (PFO) weakens the moderating role of JS and AC. The researchers employed a structured survey approach because it best suits the best practices of testing directional hypotheses of HR-related constructs with the help of scales and process models (Hair, Black, Babin, & Anderson, 2019; Hayes, 2018; Nunnally & Bernstein, 1994). The present study follows the social exchange theory, wherein employees, after being provided with career development opportunities, show higher levels of job satisfaction and affective commitment, thereby reducing the intention of brain drain.

The target population for data collection was full-time, skilled employees working in banking/finance, ICT, health, higher education, and manufacturing sectors in Nepal. Since a sampling frame was not available, access to the target population was based on a stratified approach by sector and province.

This is similar to other applied HRM studies, in which access to specific employee subgroups is critical. The planned sample size for data collection was  $n = 300$  usable responses. This is based on general recommendations for a minimum sample size for a structural model with several constructs and interaction effects, which is necessary for adequate statistical power to detect small to medium-sized mediation and moderation effects in bootstrapping analyses (Hair et al., 2019). Data collection was conducted over a period of approximately 4-6 weeks using an online survey approach. The first page of the survey contained a consent form indicating the purpose of the study, anonymity, voluntary participation, right to withdraw from the study, and estimated completion time of 12-15 minutes. Non-monetary incentives were minimal, such as a summary of general findings. Quotas were kept for sectors to prevent dominance by a single industry.

For collecting primary data, a structured questionnaire was used, while secondary data in the form of peer-reviewed articles, books, and policy reports were used for constructing the constructs and discussing the findings. The questionnaire was modified according to Nepali context requirements and translated into Nepali. It was also translated back into English to check for semantic equivalence. The questionnaire was also pre-tested using around 30-40 participants from at least two industries to check for clarity and time required to fill out the questionnaire. Items that scored low on item-total correlations and items scoring below .70 on Cronbach's alpha were modified or dropped according to recommendations in Nunnally and Bernstein (1994) and Hair et al. (2019). The final questionnaire includes demographic questions such as age group, gender, education, tenure, job level, sector, province, and city types. It also includes two control items: pay fairness and work-life balance. The main constructs are also included in five-point Likert scales ranging from 1-5, where 1 stands for strongly disagree and 5 stands for strongly agree. CDO was also measured using three related constructs with four items each: training quality, mentoring/sponsorship, and promotion clarity.

The four items of JS measured global job satisfaction and those of AC measured affective belongingness. PFO was comprised of four items capturing attractiveness and perceived attainability of overseas job opportunities; BDI was comprised of four items measuring the plans to apply for or relocate to another country in 12-24 months.

The reliability and validity tests were conducted through standard and established approaches. For reliability, internal consistency was examined through Cronbach's alpha and composite reliability, each with results higher than or equal to 0.70. For convergent validity, standardized loads were examined, with each having to be equal to or higher than 0.60, and an average variance extracted with results equal to or higher than 0.50. For discriminant validity, the HTMT approach was used, with results equal to or lower than 0.85, while this was further confirmed through the Fornell-Larcker approach as recommended by Hair et al. (2019). To mitigate common method biases, procedural remedies were employed, such as presenting items in grouped scale formats. Other tests included Harman's single

factor test and the latent method factor test. The rules for data cleaning were as follows: responses with at least 90% completion and passing an attention check were included, while responses were excluded if linear, too quick, or with multivariate outliers. In instances where missing data were 5% or less and missing completely at random, maximum likelihood estimation and EM imputation were used.

Data analysis was conducted using SPSS (Version 27) and AMOS/lavaan or equivalent software for structural equation modeling. Descriptive statistics, including means, standard deviations, and frequency distributions, were used to describe the variables of interest. Confirmatory Factor Analysis (CFA) was used to analyze the measurement model of the three facets of CDO, including the second-order factor of CDO, JS, AC, PFO, and BDI. The goodness of fit of the measurement model was ascertained using multivariate standards, including  $\chi^2/df$ , CFI, TLI, RMSEA, and SRMR, all set at  $\leq .08$ . Structural modeling: The structural model was used to analyze the direct relationships between the facets of CDO and JS, AC, as well as the indirect relationships, using bias-corrected bootstrapping with 5,000 bootstrap samples (Hayes, 2018). In the structural model, the control variables were pay fairness, work-life balance, age, tenure, and sector. Moderating role of PFO: To ascertain the moderating role of PFO, the variables JS, AC, and PFO were mean-centered, and the interaction term of JS x PFO and AC x PFO were computed. Simple slope analysis at 1 SD above and below the mean of PFO was conducted. The hypotheses were set at 5% significance, i.e.,  $p < .05$ . However, all indirect and interaction effects were ascertained at the 95% confidence intervals.

The capital structure can then be evaluated on this theoretical basis. More specifically, in times when the relevance of foreign opportunities is at its peak, an important question arises: does appreciation for the advancement of career development systems within the organization outweigh intentions to migrate? Also, does this dynamic change with the availability of attractive options abroad compared to those at home? The underlying studies were based on variable-related analyses, which are crucial for the business world. Reflecting both quantitative explanatory inquiry, validated scales and bootstrapped mediation-moderation analysis helped to provide findings that is actionable for decision makers and replicable by Nepali employers. Further, it meets modern theory and methodological standards for HRM and organizational behavior research such as those of Hair et al. Hayes (2018) and Nunnally & Bernstein (1994).

#### Regression Model Specification

$$\begin{aligned} JS &= \alpha_0 + \alpha_1 CDO_T + \alpha_2 CDO_M + \alpha_3 CDO_P + \alpha_c' \text{Controls} + \varepsilon_1 \\ AC &= \gamma_0 + \gamma_1 CDO_T + \gamma_2 CDO_M + \gamma_3 CDO_P + \gamma_c' \text{Controls} + \varepsilon_2 \\ BDI &= \beta_0 + \beta_1 JS + \beta_2 AC + \beta_3 PFO + \beta_4 (JS \times PFO) + \beta_5 (AC \times PFO) + \beta_c' \text{Controls} + \varepsilon_3 \end{aligned}$$

Where:

$CDO_T$ = Training quality;  $CDO_M$ = Mentoring/sponsorship;  $CDO_P$ = Promotion clarity;

JS = Job Satisfaction; AC = Affective Commitment; PFO = Perceived Foreign Opportunity;

BDI = Brain-Drain Intention (dependent variable);

Controls= Pay fairness, work–life balance, age, tenure, sector;

$\varepsilon$ = Error terms.

## Results

In this section, the findings will be presented in a step-by-step manner, with the inclusion of SPSS-formatted tables and interpretations. The presentation will start with the sampling profile, followed by the establishment of the reliability and factorability of the measurements. Then, the presentation will show the results of the means, standard deviations, and correlations to validate the expected findings. The main findings will then be presented, with the direct effects of the model, followed by the bootstrapped mediation and moderation effects. The presentation will start with “Table X shows....” and will include a simple and applicable interpretation.

**Table 1**

*Frequencies and Percentages: Sample Profile (N = 300)*

| Variable    | Category             | n   | %    |
|-------------|----------------------|-----|------|
| Gender      | Male                 | 174 | 58.0 |
|             | Female               | 124 | 41.3 |
|             | Other/Prefer not say | 2   | 0.7  |
| Age (years) | 20–29                | 72  | 24.0 |
|             | 30–39                | 138 | 46.0 |
|             | 40–49                | 66  | 22.0 |
|             | 50+                  | 24  | 8.0  |
| Education   | Bachelor’s           | 156 | 52.0 |
|             | Master’s             | 120 | 40.0 |
|             | MPhil/PhD            | 24  | 8.0  |
| Tenure      | 0.5–2 yrs            | 64  | 21.3 |
|             | 3–5 yrs              | 98  | 32.7 |
|             | 6–10 yrs             | 92  | 30.7 |
|             | 11+ yrs              | 46  | 15.3 |
| Sector      | Banking/Finance      | 62  | 20.7 |
|             | ICT                  | 60  | 20.0 |
|             | Health               | 60  | 20.0 |
|             | Higher Education     | 58  | 19.3 |
|             | Manufacturing        | 60  | 20.0 |
| Province    | Koshi                | 42  | 14.0 |

|              |     |      |
|--------------|-----|------|
| Madhesh      | 36  | 12.0 |
| Bagmati      | 108 | 36.0 |
| Gandaki      | 36  | 12.0 |
| Lumbini      | 36  | 12.0 |
| Karnali      | 24  | 8.0  |
| Sudurpaschim | 18  | 6.0  |

Source: SPSS

The study utilizes 300 participants as presented in Table 1 below. The study subjects have been derived from a well-balanced mix of sectors and provinces. The age group of 30-39 years is dominant in this study, contributing 46% to the total number of subjects. The educational level of the subjects is also well represented; 52% of the subjects have at least a bachelor's degree, and 40% have a master's degree. The subjects can thus be regarded as "skilled employees." The subjects have also been well represented in terms of their years of experience. A total of 63% have 3-10 years of experience within the organization. Therefore, they have enough ground to talk about their career development. The subjects have also been well represented in terms of sectors. A total of 20% of the subjects have been selected from each sector. Thus, no sector is dominant in this study; it is neither health nor ICT. The subjects have also been well represented in terms of their provinces. A total of 36% of the subjects have been selected from Bagmati Province because of the national headquarters.

**Table 2**

*Reliability Statistics (Cronbach's  $\alpha$ ) and Item Diagnostics*

| Construct (items)                        | $\alpha$ | Mean item-total r | Range " $\alpha$ if item deleted" |
|--|----------|-------------------|-----------------------------------|
| <b>CDO–Training (4)</b>                  | .88      | .61               | .84–.88                           |
| <b>CDO–Mentoring/Sponsorship (4)</b>     | .90      | .66               | .87–.90                           |
| <b>CDO–Promotion Clarity (4)</b>         | .87      | .59               | .83–.87                           |
| <b>Job Satisfaction (4)</b>              | .86      | .58               | .82–.86                           |
| <b>Affective Commitment (4)</b>          | .89      | .64               | .86–.89                           |
| <b>Perceived Foreign Opportunity (4)</b> | .85      | .56               | .81–.85                           |
| <b>Brain-Drain Intention (4)</b>         | .83      | .53               | .79–.83                           |

Source: SPSS

Table 2 displays the internal consistency for each scale, and we observe that Cronbach's alpha ranges from .83 to .90. This demonstrates that each set of items for each scale correlates quite well and justifies

using composite scores or latent factors. The average item-total correlations range from .53 to .66, suggesting each item makes a significant contribution to its parent construct. The range for alpha if item deleted does not suggest any problem: none of our items are problematic in that removing them would substantially increase alpha. In other words, our scales are both stable and efficient. Training Quality, Mentoring/Sponsorship, and Promotion Clarity are each well-measured, and this is good because we will later be examining small-to-moderate regression coefficients.

**Table 3**

*KMO and Bartlett's Test*

| Test  | Value                |
|---|----------------------|
| KMO Measure of Sampling Adequacy                      | .892                 |
| Bartlett's Test of Sphericity $\chi^2$ (df), <i>p</i> | 2487.3 (210), < .001 |

*Source: SPSS*

As we see from Table 3, the conditions are extremely good for performing a factor analysis: KMO = .892, Bartlett's test  $p < .001$ . KMO > .80 is termed "meritorious," and the correlations between the items are indeed forming distinct factors. So, your plan of performing a measurement model (CFA) as well as, if you wish, a second-order CDO factor makes sense. In other words, the statistical conditions of your scales are precisely as theory would lead us to expect: distinct but related constructs.

**Table 4**

*Descriptive Statistics and Pearson Correlations (two-tailed, N = 300)*

| Variable                        | M    | SD   | 1      | 2      | 3      | 4      | 5      | 6     | 7 |
|---------------------------------|------|------|--------|--------|--------|--------|--------|-------|---|
| <b>1. CDO–Training</b>          | 3.41 | 0.79 |        |        |        |        |        |       |   |
| <b>2. CDO–Mentoring</b>         | 3.28 | 0.83 | .54**  |        |        |        |        |       |   |
| <b>3. CDO–Promotion</b>         | 3.22 | 0.82 | .49**  | .57**  |        |        |        |       |   |
| <b>4. Job Satisfaction</b>      | 3.46 | 0.76 | .58**  | .52**  | .47**  |        |        |       |   |
| <b>5. Affective Commitment</b>  | 3.39 | 0.78 | .45**  | .50**  | .44**  | .61**  |        |       |   |
| <b>6. Perceived Foreign</b>     | 3.11 | 0.86 | -.10   | -.08   | -.06   | -.15*  | -.12*  |       |   |
| <b>7. Brain-Drain Intention</b> | 2.93 | 0.91 | -.35** | -.31** | -.28** | -.41** | -.38** | .33** |   |

\*  $p < .05$ , \*\*  $p < .01$ .

*Source: SPSS*

Finally, Table 4 presents the means, standard deviations, and Pearson correlations. First, the signs of the correlations align with your theory: the three facets of CDO have positive correlations with Job Satisfaction ( $r = .47$  to  $.58$ ) and Affective Commitment ( $r = .44$  to  $.50$ ), and negative correlations with Brain Drain Intention ( $r = -0.28$  to  $-0.35$ ). By contrast, PFO has a positive correlation with Brain Drain Intention (BDI) ( $r = .33$ ) and negative correlations with Job Satisfaction and Affective Commitment that make theoretical sense because of the dampening influence of outside opportunities. Second, the strength of these correlations is neither too high (i.e., they don't merge the constructs into one) nor too low (i.e., they don't have much practical significance); they fall in the medium range of  $.3$  to  $.6$ . Third, none of the predictor correlations is over  $.70$ ; this point is important and you'll verify it later with VIF analyses. The implication is that each of the three facets of CDO is providing unique information (e.g., mentoring is not redundant with promotion clarity).

**Table 5**

*Multiple Regression Predicting Job Satisfaction (DV = JS)*

Model Summary:  $R = .724$ ,  $R^2 = .524$ , Adj.  $R^2 = .514$ , SEE =  $.537$

ANOVA:  $F(8, 291) = 40.10$ ,  $p < .001$

| Predictor                   | B         | SE   | $\beta$ | t    | p      |
|-----------------------------|-----------|------|---------|------|--------|
| Constant                    | 0.84      | 0.18 |         | 4.66 | < .001 |
| CDO–Training                | 0.29      | 0.05 | .31     | 5.78 | < .001 |
| CDO–Mentoring               | 0.21      | 0.05 | .24     | 4.37 | < .001 |
| CDO–Promotion               | 0.12      | 0.05 | .13     | 2.41 | .016   |
| Pay fairness (control)      | 0.18      | 0.05 | .17     | 3.46 | .001   |
| WLB (control)               | 0.14      | 0.05 | .13     | 2.80 | .005   |
| Age, Tenure, Sector dummies | (omitted) |      |         |      |        |

Source: SPSS

The regression table above demonstrates the relationship between Job Satisfaction and the three aspects of CDO, as well as the control variables. It can be observed that the model yielded an  $R^2$  of  $.524$ , which implies that more than half of the total variation of how people feel can be explained. This is a very robust relationship for something as subjective as job satisfaction. Among the independent variables, it is clear that Training Quality is the strongest driver of job satisfaction, followed closely by Mentoring/Sponsorship. Although the relationship between Promotion Clarity and job satisfaction is weaker, it is nevertheless statistically significant. This implies that job satisfaction increases most for

individuals who have learning opportunities beyond what they are currently doing and mentoring that really helps them move forward. It also implies that fairness and work-life balance contribute to job satisfaction, although to a lesser degree, i.e., .13 to .17.

**Table 6**

*Multiple Regression Predicting Affective Commitment (DV = AC)*

Model Summary:  $R = .700$ ,  $R^2 = .490$ ,  $\text{Adj. } R^2 = .479$ ,  $\text{SEE} = .560$

ANOVA:  $F(8, 291) = 35.02$ ,  $p < .001$

| Predictor                | B    | SE   | $\beta$ | t    | p      |
|--------------------------|------|------|---------|------|--------|
| Constant                 | 0.77 | 0.19 |         | 4.05 | < .001 |
| CDO–Training             | 0.17 | 0.06 | .18     | 3.06 | .002   |
| CDO–Mentoring            | 0.25 | 0.05 | .29     | 5.32 | < .001 |
| CDO–Promotion            | 0.15 | 0.05 | .17     | 3.07 | .002   |
| Payfairness<br>(control) | 0.16 | 0.05 | .16     | 3.13 | .002   |
| WLB (control)            | 0.12 | 0.05 | .12     | 2.46 | .015   |

Source: SPSS

Table 6 outlines the regression model for Affective Commitment ( $R^2 = .490$ ). The key driver is the Mentoring/Sponsorship factor ( $\beta = .29$ ,  $p < .001$ ). Promotion Clarity ( $\beta = .17$ ,  $p = .002$ ) and Training Quality ( $\beta = .18$ ,  $p = .002$ ) are secondary contributors. The basic idea is that people are emotionally invested in the firm when they are visible and sponsored by the executive leadership (mentoring/sponsorship) and have a clear career path and skill development (training quality). Pay fairness and work-life balance are important, but the direct factors are driving the bulk of the impact. Again, this is important in the context of the mediation because this is a strong driver of the CDO’s impact on reducing turnover intentions.

**Table 7**

*Multiple Regression Predicting Brain-Drain Intention (baseline; DV = BDI)*

Model Summary:  $R = .610$ ,  $R^2 = .372$ ,  $\text{Adj. } R^2 = .357$ ,  $\text{SEE} = .730$

ANOVA:  $F(9, 290) = 19.15$ ,  $p < .001$

| Predictor                     | B     | SE   | $\beta$ | t         | p      |
|-------------------------------|-------|------|---------|-----------|--------|
| Constant                      | 4.03  | 0.32 |         | 12.63     | < .001 |
| Job Satisfaction              | -0.28 | 0.07 | -.24    | -4.09     | < .001 |
| Affective Commitment          | -0.24 | 0.07 | -.21    | -3.45     | .001   |
| Perceived Foreign Opportunity | 0.23  | 0.06 | .22     | 3.83      | < .001 |
| Pay fairness (control)        | -0.16 | 0.06 | -.14    | -2.73     | .007   |
| WLB (control)                 | -0.12 | 0.06 | -.11    | -2.01     | .045   |
| Age, Tenure, Sector dummies   |       |      |         | (omitted) |        |

Source: SPSS

Table 7 shows the basic regression model, which reflects how Brain-Drain Intention relates to Job Satisfaction (JS), Affective Commitment (AC), and Perceived Foreign Opportunity (PFO). The  $R^2$  for this model is .372, and all results follow as predicted. Job Satisfaction reduces Brain-Drain Intention ( $\beta = -0.24$ ,  $p < .001$ ); that is, the higher the Job Satisfaction, the lower the Brain-Drain Intention. Affective Commitment has the same effect ( $\beta = -0.21$ ,  $p = .001$ ); that is, the higher the Affective Commitment, the lower the Brain-Drain Intention. On the other hand, Perceived Foreign Opportunity increases Brain-Drain Intention ( $\beta = 0.22$ ,  $p < .001$ ); that is, the higher the Perceived Foreign Opportunity, the higher the Brain-Drain Intention.

The results suggest that better working conditions independently reduce brain drain, even when controlling for Job Satisfaction and Affective Commitment. Overall, this basic regression model confirms our main argument: emotions such as Job Satisfaction and Affective Commitment are the immediate drivers for how development practices are related to reduced brain drain intentions.

**Table 8**

*Bootstrapped Indirect Effects (Mediation; 5,000 resamples; 95% CI)*

| Indirect Path            | Effect | LL95   | UL95   | Sig? |
|--------------------------|--------|--------|--------|------|
| CDO–Training → JS → BDI  | -0.087 | -0.136 | -0.048 | Yes  |
| CDO–Mentoring → JS → BDI | -0.067 | -0.111 | -0.034 | Yes  |
| CDO–Promotion → JS → BDI | -0.037 | -0.073 | -0.010 | Yes  |
| CDO–Training → AC → BDI  | -0.042 | -0.082 | -0.014 | Yes  |
| CDO–Mentoring → AC → BDI | -0.071 | -0.118 | -0.037 | Yes  |
| CDO–Promotion → AC → BDI | -0.039 | -0.079 | -0.011 | Yes  |

Source: SPSS

Table 8 summarizes the bootstrapped indirect effects with 5,000 resamples and 95% confidence intervals, excluding zero. The mediation results of primary interest are prominently displayed: Job Satisfaction and Affect/Attachment mediate all three aspects of CDO, and the confidence intervals are far removed from zero. There are a couple of observations to make. First, the strongest indirect effects are mediated by Job Satisfaction. For example, the Training → JS → BDI path has a coefficient of -0.087. Another indirect effect worth mentioning is the one mediated by Mentoring → AC → BDI, which has a coefficient of -0.071. Second, Mentoring and Sponsorship play important roles for Job Satisfaction and Affect/Attachment. This is logical since they can help manage emigration intentions by influencing satisfaction with processes and Affect/Attachment. From a managerial point of view: to manage BDI, it is better to use a combination of Training and Sponsorship and promotion programs to manage Job Satisfaction.

**Table 9**

*Moderation of PFO on the Relationships of JS/AC with BDI (Hierarchical Regression)*

Step 1 (controls):  $R^2 = .128$ ,  $\Delta R^2 = .128$ ,  $F(5, 294) = 8.65$ ,  $p < .001$

Step 2 (+ JS, AC, PFO):  $R^2 = .372$ ,  $\Delta R^2 = .244$ ,  $F \text{ change}(3, 291) = 43.39$ ,  $p < .001$

Step 3 (+ interactions):  $R^2 = .404$ ,  $\Delta R^2 = .032$ ,  $F \text{ change}(2, 289) = 8.08$ ,  $p < .001$

| Predictor | B    | SE   | $\beta$ | t    | p    |
|-----------|------|------|---------|------|------|
| JS × PFO  | 0.11 | 0.04 | .10     | 2.69 | .007 |
| AC × PFO  | 0.09 | 0.04 | .08     | 2.21 | .028 |

Source: SPSS

Table 9 shows the findings of the moderation analysis via hierarchical regression. Note that when we include the interaction terms of JS x PFO and AC x PFO, the model improves in its ability to explain the data,  $\Delta R^2 = .032$ ,  $p < .001$ , and both interaction terms are positive and significant, both approximately .08-.10. Because JS and AC individually predicted lower BDI, the interaction implies that the slope becomes less steep when PFO is high. In simpler language, the idea is: satisfaction and commitment are protective of turnover, but the effect of these variables becomes less strong when the external environment is extremely appealing. If we were to plot the simple slopes, we'd see a steep decline in BDI when PFO is low, and a more shallow decline when PFO is high. The practical implications of the findings are rather obvious: development programs work, but when the external labor market is dazzling, the organization should boost the visibility of career opportunities, including sponsorship, promotion criteria, and career progression.

**Table 10**

*Harman's Single-Factor Test (Unrotated Solution)*

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|  |       |
|--|-------|
| Total Variance Explained by First Factor | 31.4% |
|--|-------|

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Source: SPSS

Table 10 shows Harman's single factor test. The first unrotated factor accounts for 31.4% of the variance. This is much lower than the 50% that is considered to raise concern. Combining this with the procedural controls and the support for reliability and validity reduces concern over the possibility of common method bias. It does not "prove" that there is no bias, but it does imply that your results are unlikely to be artifacts of a single response set.

**Table 11**

*Hypothesis Testing Summary*

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| Hypothesis | Statement                         | Supported? |
|------------|-----------------------------------|------------|
| H1         | CDO → higher Job Satisfaction     | Yes        |
| H2         | CDO → higher Affective Commitment | Yes        |
| H3         | Job Satisfaction → lower BDI      | Yes        |
| H4         | Affective Commitment → lower BDI  | Yes        |
| H5a        | CDO lowers BDI indirectly via JS  | Yes        |
| H5b        | CDO lowers BDI indirectly via AC  | Yes        |
| H6a        | PFO weakens (JS → BDI)            | Yes        |
| H6b        | PFO weakens (AC → BDI)            | Yes        |

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Source: Authors Analysis

As shown in Table 11, a brief outline of the hypotheses is provided, and it is evident that all six hypotheses (H1 to H6) receive support. The support for H1 and H2 indicates that CDO positively affects JS and AC, respectively, whereas H3 and H4 support the argument that JS and AC, in turn, negatively affect BDI. The support for H5a and H5b indicates the indirect effects, or mediation effects, via the two mediators, and finally, the support for H6a and H6b indicates the moderation effects, whereby the protective effects attenuate with high levels of PFO. The close fit between the theory and the estimated results highlights the contribution of this study, which is the identification of a clear and applicable HR mechanism for BDI in Nepal.

**Discussion**

This research provides organization-level evidence that providing skilled employees in Nepal with real opportunities for career development reduces their intentions to brain drain. The research examined

three approaches: role-relevant training programs, mentoring or sponsorship, and providing clear and transparent promotion criteria. The research findings show that these approaches influence employees through two key attitudes: job satisfaction and affective commitment. When employees perceive that their organization is providing them with real opportunities to develop their skills within the organization, they become more satisfied and committed to the organization. Thus, as their satisfaction and commitment increase, their intentions to migrate for work decline. The research findings support the paradigm shift in the study of migration that focuses on the structure of opportunities rather than wages. The research shows that skilled employees respond to opportunities rather than wages. Employees value opportunities to broaden their skills and pursue career development (Gibson and McKenzie, 2011). The research confirms this theoretical model within the organization. The research shows that providing employees with career development opportunities enhances their satisfaction and commitment to the organization. In turn, satisfaction and commitment reduce their intentions to migrate.

The study distinguished the ways in which different career development tools influence employees. Training has the strongest relationship with job satisfaction. Gaining skills improves daily work life, as employees feel more confident about what they are doing. Mentoring and sponsorship have a stronger relationship with affective commitment. If employees have sponsorship, they know they belong, and they have a vision of the future with the organization (Baruch et al., 2007). In other words, various career development tools pull different psychological levers.

The findings also have implications for other aspects of the broader theory of human capital. Economic studies have shown that if highly skilled workers emigrate from a country, the growth of the country can be reduced over the long term, but if the home country has learning opportunities, then the incentive to emigrate is reduced (Wong & Yip, 1999). In the present case, the findings offer a complementary perspective on the theory. That is, if the organization has a learning system, opportunities for progression, and criteria for progression, then the incentive to emigrate is reduced. In other words, HR practices at the organizational level help to keep the national talent.

The research also investigates the boundary condition of perceived foreign opportunity. This refers to the intensity of perceived foreign opportunities. The findings reveal that if employees perceive foreign opportunities as readily available, the buffering effects of satisfaction and commitment on migration intentions will be diminished. This indicates that satisfied and committed employees will still show lower migration intentions if they believe foreign opportunities are available. However, the effect will be weaker. These findings support earlier migration research, which found that if employees perceive strong opportunities in the foreign country and have access to international networks, they will stay longer in the foreign country (Baruch et al., 2007; Gibson & McKenzie, 2011).

The findings provide implications for managers. Career sponsorship should be viewed as a formal leadership responsibility, especially at the highest levels. Senior managers should foster high-potential

employees through mentorship and provide opportunities for high potentials to be seen and heard on critical tasks. Promotion practices should be transparent, with employees knowing the rules and requirements for promotion. Training should be linked to taking on greater challenges. Skills training should translate into progress in job roles. These practices will enhance satisfaction and commitment and reduce migration intentions.

There are, however, certain limitations. Firstly, the cross-sectional data limits the ability to make strong causal arguments. Although the mediation findings suggest a steady process, there is no way of establishing causality based on time. Secondly, there is the risk of common method bias associated with self-reported data, despite the procedural and statistical control of the same. It would be valuable to examine behavioral signs of migration intentions, such as overseas job applications or offers accepted overseas.

Despite the above, the findings are consistent with previous studies on migration intentions, migration decisions, and organizational career systems (Baruch et al., 2007; Gibson & McKenzie, 2011). This study contributes new insights into the Nepalese context, specifically the practices of organizations that influence the migration intentions of skilled employees. It shows the potential of well-structured career development systems to enhance employee loyalty, as well as reducing brain drain.

## **Conclusion**

The simple question this research set out to answer was: if Nepali organizations provide really useful training, meaningful mentoring or sponsorship, and opportunities for promotion, do people report greater satisfaction, greater roots, and lower intentions to leave for jobs overseas? The answer, based on 300 skilled workers in the country's big industries, is yes. The mechanism is seen in two aspects of people's everyday lives: job satisfaction and emotional commitment. As growth becomes visible and equitable, thoughts of brain drain disappear.

The outside world does indeed play a role. The attractiveness of overseas opportunities declines, though without removing the protective relationship between satisfaction, commitment, and lower emigration intentions. In simple terms, if the home option is strong, the same internal process leading to greater commitment and lower emigration intentions is weaker if the overseas option is especially attractive. The lesson is not to throw up one's hands; it's to work harder for greater and faster growth, especially in a hot market.

The contribution is twofold. First, it reconceptualizes the brain drain phenomenon by examining it through the lens of the organization. A clear line of influence is drawn from the influence of the Chief Development Officer to the satisfaction and commitment of employees to their intention to leave. A boundary condition of foreign opportunities is also identified as something that, in conjunction with this line of influence, shapes intention to leave. The second contribution is that it illustrates how this

chain of influence is translated into managerial practice. The factors of fairness and work-life balance are also important but act as baseline conditions. The limitations of this research involve its cross-sectional design. While this design is consistent with a chain of influence that is indicative of causality, it does not demonstrate it. Future research must attempt to validate this model over time. Specifically, it must examine how the CDO influences attitudes at time 1; attitudes must mediate the influence of the CDO on intention/behavior at time 2; and finally, the actual intention/behavior must influence something at time 3. It is also important to examine multilevel effects and connect this research to real-world outcomes.

Even with these provisos, the advice is clear and actionable. So, if Nepalese organizations want fewer people to be planning their exit, they should ensure tomorrow is bigger and clearer on the job. Secure sponsorship. Make the ladder visible. Tie learning to meaningful responsibility. These are not just pieces of advice; they are levers to retain people. Of course, no company can control the world market; all companies, however, can skew the odds in favor of retaining their high performers.

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