

PUBLIC-PRIVATE-PARTNERSHIPS IN EXPANDING GERMAN EDUCATION
AND CAREER ACCESS FOR MARGINALIZED INDIAN YOUTH

by

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Dedication

This study is dedicated to my father, **Late Jaga Mohan Singh**, my mother, **Suranjani Singh**, and my wife, **Tabitha Singh**, who have always encouraged me to pursue the highest level of education in Switzerland that they never achieved.

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ABSTRACT

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This study examines the role of Indo–German Public–Private Partnerships (PPPs) in expanding equitable access to vocational education and sustainable employment opportunities for marginalized Indian youth. Situated within the broader contexts of globalization, demographic transitions, and Germany’s acute skilled labor shortages, PPPs have emerged as strategic mechanisms connecting India’s large youth population with Germany’s dual vocational education and training (VET) model. Flagship initiatives such as IGVET and Make in India Mittelstand provide structured pathways through language instruction, apprenticeships, and cultural orientation. Yet, questions remain regarding their long-term effectiveness and inclusivity.

Marginalized youth from Scheduled Castes, Scheduled Tribes, Other Backward Classes, and rural communities continue to face significant barriers, including financial constraints, systemic discrimination, limited language proficiency, and uneven

institutional support. This study critically investigates whether PPPs genuinely foster social inclusion, enhance employability, and facilitate “brain circulation” rather than perpetuating one-way brain drain. Adopting a qualitative-dominant case study approach, the research draws on interviews, focus groups, and document analysis to examine program design, participant experiences, and both immediate and long-term outcomes. By foregrounding the lived experiences of participants, the study demonstrates how Indo–German PPPs operate as conditional catalysts of mobility and empowerment—effective when financial, linguistic, and psychosocial supports are integrated, but less so when such supports are fragmented or absent. The findings contribute to debates on international skill partnerships by offering equity-oriented recommendations for designing socially responsible, sustainable, and scalable PPP frameworks. These insights aim to inform policy and practice in both India and Germany, aligning future initiatives with broader global development and migration governance goals.

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CHAPTER I: INTRODUCTION

1.1 Background of the Study

In an era of globalization, population change, and high-technology innovation, international collaboration in education and manpower movement has been both a strategic need and a humanitarian need. Out of the collaborative models currently being developed in these regards, Public–Private Partnerships (PPPs) have also emerged as effective tools that synergize governments', schools', and business enterprises' capital, expertise, and objectives. Such partnerships increasingly play a central role in forging inclusive learning and work pathways, particularly for the socioeconomic underprivileged. In the Indo-German context, PPPs play a unique role to address Germany's deficit of skilled labor while also complementing equitable access to vocational training for marginalized Indian youth. Germany's dual vocational training and education (VET) program—blending classroom learning with formal on-the-job training—is well-acquainted globally for its capacity to develop highly competent employees attuned to evolving industry requirements (Bratsberg, Nyen and Raaum ,2019). Simultaneously, Germany also has serious population challenges on its plate—a declining working-age population and extreme shortages of labor in healthcare, engineering, and the information technology sectors (Fabre & Straub, 2023). In

response, German policymakers have increasingly turned towards international pools of talent, with India—possessing a vast, young, and rapidly educated population—emerging as a key partner. India's demographic dividend is full of immense potential, but hidden structural inequalities—income poverty, gaps in educational opportunities, and entrenched social stratification—still limit upward mobility for the excluded such as Scheduled Castes, Scheduled Tribes, and Other Backward Classes. Financial constraints, institutionalized discrimination, weak institutional capacity, and mismatch between domestic training and the demands of the international labor market disproportionately prevent these groups from accessing transnational training and employment opportunities (Doğan and Ateşgöz ,2022).

Such exclusion sustains intergenerational cycles of poverty and is a barrier to national development inclusivity. To fill these gaps, a number of Indo-German PPP initiatives have been launched to educate underprivileged Indian youth through vocational training, integration into society, and international placement. Programs such as the Indo-German Programme for Vocational Education and Training (IGVET), Make in India Mittelstand, and joint ventures with organizations like the Goethe-Institut, GIZ, and industries like Siemens and Bosch indicate systemic efforts towards integrating marginalized youth into Germany's vocational sector.

Such programs typically include intensive German language training, mentorship, scholarship, cultural orientation, and job placement support—

thoughtfully designed to meet the specific needs of vulnerable groups (GIZ, 2020). Language proficiency at CEFR levels B1 or B2 has been identified as key to integration into the German education and labor markets. Knowing this, the majority of PPPs incorporate language training as a core component, typically offered in addition to soft skills and intercultural competence modules.

Institutions such as the Goethe-Institut provide sector-specific language training that enhances not only employability but also social confidence and adaptability—cues critical to success among youth who lack strong social support networks abroad (Kunz & Gessler, 2021).

Experiential learning through internships and apprenticeships is another cornerstone of such partnerships. Following the German VET model, organized workplace training is availed in such programs to acquire technical expertise as well as integration into the host society. Empirical studies show that PPPs with organized mentorship and psychosocial support have a key function in dropout prevention and long-term employability of socially excluded apprentices (ILO, 2018).

Despite such strengths, structural challenges remain. Marginalized youth continue to experience barriers in the guise of visa limitations, non-acceptance of qualifications, restricted resources, and social marginalization. Moreover, assessments of PPPs thus far have a tendency to somewhat overemphasize narrow short-term measures such as enrollment or initial job placement, with

little regard for long-term career trajectories, psychosocial growth, or return migration dynamics (Docquier & Rapoport, 2012).

Other problems that go along with "brain drain"—irreversible emigration by educated youth—have also questioned the sustainability and moral basis of such transnational partnerships. New paradigms such as "brain circulation" offer a more advanced view, emphasizing the potential for mutual benefit when international migration is tied to return, remittance, transfer of knowledge, and diaspora engagement. On this basis, PPPs with post-placement follow-up, alumni networks, and reintegration can offer the scalable models of international skill mobility (Saxenian ,2022). Germany's Skilled Immigration Act and growing policy interest in diaspora collaboration present further opportunities to institutionalize brain circulation, provided that supportive policy frameworks are embedded within program design.

This study thus responds to an urgent need to critically examine how Indo-German PPPs function not only as vehicles for skill transmission but also as enablers of equitable global mobility. Specifically, it investigates how these programs are conceptualized, implemented, and experienced by marginalized Indian youth—focusing on whether they effectively address structural inequities, facilitate sustainable employment in Germany, and support meaningful pathways for return migration and transnational engagement with India.

Overall, the research lies at the intersection of education justice, global development, and workers' mobility. By analyzing the role of Indo-German PPPs

in expanding vocational opportunities for disadvantaged Indian youth, it adds to the inclusive globalization debate. The findings aim to be practice-informed and policy-relevant and offer an example for designing socially responsible, scalable, and context-sensitive PPP designs in international education and workforce development.

1.2 Statement of the Problem

Public-Private Partnerships (PPPs) are now emerging as strategic options to address global labor shortages, education imbalances, and global management of migration. Countries like Germany, which is facing extreme demographic imbalances and rising demand for quality manpower in healthcare, engineering, and IT streams, are increasingly looking abroad to fill labor gaps. In contrast, India, with its huge and youthful population, remains behind in ensuring equal access to quality education and vocational training for socially and economically disadvantaged groups, most notably. Indo-German PPPs have been offered as a potential confluence between these converging demographic and economic trends. Nevertheless, despite these endeavors increasing within the past few years, there is little that is known about whether, how, and to what extent these partnerships effectively address structural and social obstacles confronting marginalized Indian youth.

Youth from impoverished communities in India—e.g., from Scheduled Castes, Scheduled Tribes, Other Backward Classes, and rural communities—are exposed to structural barriers in accessing domestic and international education and employment

opportunities. These include economic disadvantage, inadequate vocational infrastructure, inadequate mentorship, inadequate language training, and embedded social discrimination (Mathur, 2022a). As a result, they are pushed into insecure, low-wage labor markets with little possibility of skill development or career advancement.

These problems have been addressed by designing several Indo-German PPPs that provide structured access to Germany's dual VET system—renowned for the integration of academic education with practice-related, industry-focused training. Programs such as the Indo-German Programme for Vocational Education and Training (IGVET) and the Make in India Mittelstand program offer technical training, German language instruction, internships, and placement assistance post-training (GIZ, 2020). However, these initiatives tend to focus a great deal on short-term indicators such as recruitment and initial employment placement, with inadequate stress being laid upon long-term outcomes, including sustained employment, career advancement, mental well-being, and social integration (ILO, 2018; Kunz & Gessler, 2021). Second, socio-economic and socio-cultural problems are likely to persist even after resettlement in Germany. Differences in languages, unfamiliar administrative systems, and thin social networks of support are likely to reinforce feelings of isolation and preclude successful integration. Many of these young people are first-generation migrants, without pre-exposure to international education systems and exposure to diaspora communities that could facilitate adjustment.

In opposition to these shortcomings, this study seeks to critically analyze the Indo-German PPPs' design, execution, and impact from the perspective of the marginalized Indian youth. Questions that exist are: Are they inclusive in their design or reinforcing structural inequalities? Are they offering fleeting employment or long-term career prospects? Can they balance Germany's labor market needs and India's development priorities, or do they create one-way talent and opportunity flows? Such disadvantages, if unaddressed, are associated with higher dropout rates, job instability, and psychological distress (Adedeji et al., 2025).

At a structural level, significant gaps exist between India's vocational education system and Germany's standardized, competency-based dual model. India's Technical and Vocational Education and Training (TVET) sector often suffers from weak industry alignment, limited international recognition, and inconsistent quality (Pilz & Regel, 2021). Despite bilateral skill-mapping efforts and bridge programs, progress in aligning systems has been uneven, leaving many Indian participants underprepared for Germany's rigorous VET standards. Furthermore, immigration requirements—such as the need for blocked accounts or formal recognition of qualifications—pose additional hurdles for low-income youth with limited institutional backing (Indian express , 2022).

Another pressing concern is the potential for “brain drain.” While PPPs aim to equip Indian youth with globally relevant skills, they may unintentionally contribute to the permanent outmigration of India's skilled workforce, especially in the absence of mechanisms to incentivize return migration or facilitate reintegration into the

domestic labor market. Although the concept of “brain circulation”—where migrants return with enhanced skills, networks, and capital—offers a more balanced perspective, such outcomes are not automatic. Without deliberate planning and policy support, PPPs risk exacerbating global talent asymmetries by channeling skilled individuals from developing to developed economies without reciprocal developmental gains (Docquier & Rapoport, 2012).

The current body of research on Indo-German PPPs is fragmented and often overly optimistic or policy-centric, rarely capturing the lived experiences of marginalized youth navigating these transnational pathways. There is a lack of longitudinal data on employment trajectories, psychosocial outcomes, and social integration. Moreover, few studies have applied an equity lens to examine how these programs perform across lines of caste, gender, and rural–urban divides. Consequently, it remains unclear whether these partnerships fulfill their stated goals of inclusion, empowerment, and mutual benefit—or whether they reproduce existing inequities under the guise of international opportunity.

This research is meant to provide answers to these questions through research into both the short- and long-term effects of PPP involvement—spanning from initial access and capacity building to employment, integration, and return migration. It also aims to create best practices, institutional innovations, and policy tools that ensure maximum equity and sustainability of such arrangements.

Finally, the issue is not with the presence of PPPs themselves, but with their selective responsiveness to systemic disadvantage, their failure to focus on tracking long-term

consequences, and their failure to incorporate equity-based standards into program planning. If these shortfalls are not addressed, PPPs may become lavish but flawed initiatives—insufficient to fulfill their vision for inclusive, transnational development.

1.3 Research Objectives

This study seeks to critically evaluate how Indo-German Public–Private Partnerships (PPPs) can enhance inclusive vocational education access and sustainable employment among disadvantaged Indian youth, while at the same time helping alleviate Germany's shortage of labor and India's challenges in integrating disadvantaged groups into global labor markets.

Through the intersection of employability, social inclusion, and transnational development, the research aims to determine if such partnerships are indeed enhancing inclusive career pathways and brain circulation or are more likely to reinforce existing disparities in the name of global mobility.

This study will:

- Discuss the structural barriers—e.g., caste, gender, rural background, educational disparity, and language insufficiency—that detract from marginalized Indian youth accessing and benefiting from Indo-German PPPs.

- Discuss the design, delivery, and everyday realities of PPP programs at every stage along the education-to-employment continuum, from pre-departure training through integration into Germany's labor market.
- Compare short- and long-term labour market experiences, including job retention, career progression, income protection, and the formation of professional identity, and examine how Indian qualification recognition in Germany affects employability.
- Examine how PPPs facilitate or restrict integration into German society, notably issues of language problems, racism, visa regulations, cultural adaptation, and mental health.
- Evaluate the role of PPPs in long-term mobility patterns, asking whether they facilitate sustainable brain circulation by way of re-migration, diaspora engagement, and re-skilling reintegration or whether they reinforce brain drain.
- Formulate evidence-informed policy suggestions for decision-makers and program planners to deepen the inclusivity, equity, and sustainability of Indo-German PPP frameworks.

These objectives are grounded in the principles of SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), SDG 10 (Reduced Inequalities), and SDG 17 (Partnerships for the Goals), and aim to provide actionable insights for building ethical, inclusive, and effective transnational education-to-employment pipelines.

1.4 Research Questions (RQs).

RQ1: How do Indo-German Public–Private Partnership (PPP) programs influence educational access and employability experiences of marginalized Indian youth in Germany?

RQ2: To what extent do PPP frameworks facilitate brain circulation rather than brain drain in the context of skilled migration between India and Germany?

1.5. Overview of the Proposed Conceptual Frameworks

The conceptual framework guiding this study serves as a structured lens for examining how Public–Private Partnerships (PPPs) in Indo–German educational and employment contexts influence the life trajectories of marginalized Indian youth, with a particular focus on training access, employability, migration pathways, and the dynamics of brain drain versus brain circulation. The framework integrates variables at individual, institutional, and policy levels, mapping their interrelationships to the study’s two primary research questions:

- **RQ1:** How do Indo–German PPP-led educational and training initiatives affect the employability and career outcomes of marginalized Indian youth?
- **RQ2:** How do these initiatives influence migration patterns, particularly in relation to brain drain and brain circulation, and what implications arise for both India and Germany?

The framework has been designed to link core constructs identified in the literature to the empirical logic of the study, ensuring that theoretical grounding and research objectives are aligned from the outset.

1.5.1 Core Constructs and their Relationships

The conceptual model is organized around six interlinked constructs:

1. **Marginalized Indian Youth** – This construct defines the primary beneficiary group, characterized by socio-economic disadvantage, limited access to quality education, and underrepresentation in global mobility opportunities. Attributes such as rural/urban background, caste, gender, and prior educational attainment shape the initial conditions and constraints these individuals face.
2. **Public–Private Partnerships (PPPs)** – PPPs are conceptualized as collaborative arrangements between governmental bodies, private sector actors, and occasionally NGOs, aimed at co-designing and delivering educational and vocational training programmes. In this framework, PPPs are the central **intervention mechanism**.
3. **Training Access and Quality** – A mediating variable capturing the reach, inclusiveness, and effectiveness of PPP-led training initiatives. This includes access to language instruction, technical skills, cultural orientation, and work-based learning experiences (e.g., internships, apprenticeships).
4. **Employment Outcomes** – A key dependent construct, measured through indicators such as job placement rates, income levels, sectoral mobility, and job

- satisfaction. Employment outcomes are hypothesised to be directly influenced by the scope and quality of PPP-facilitated training.
5. **Migration Pathways** – This construct examines whether trained individuals migrate to Germany (or other countries), remain in India, or engage in circular migration. Pathways are influenced both by structural opportunity (e.g., visas, recruitment channels) and individual aspirations.
 6. **Brain Drain vs. Brain Circulation** – The macro-level dynamic that situates individual migration decisions in a broader socio-economic context. Brain drain is considered a net loss of human capital for India, while brain circulation represents the return or transnational engagement of migrants that benefits both sending and receiving countries.

These constructs are **interlinked in a causal chain** from **PPPs, Training Access & Quality, Employment Outcomes, Migration Pathways, Brain Drain/Circulation Outcomes**. Individual-level factors (e.g., personal motivation, resilience), institutional-level factors (e.g., PPP design, employer engagement), and policy-level factors (e.g., visa rules, education policy alignment) act as enabling or constraining conditions.

1.5.2 Linking Constructs to Research Questions

The framework explicitly aligns with the research questions:

- **For RQ1:**

The model positions **PPPs** as the independent variable, **Training Access and Quality** as a mediating factor, and **Employment Outcomes** as the primary dependent variable. This chain captures how intervention design and delivery influence tangible career results for marginalized youth.

- **For RQ2:**

The model extends the causal chain to include **Migration Pathways** and the broader **Brain Drain/Circulation** outcomes. Here, employment results are not the endpoint but part of a longer process that shapes mobility decisions, return migration, and transnational contributions.

By linking variables in this way, the framework allows the study to investigate both **micro-level career impacts** and **macro-level migration dynamics**, revealing their interdependencies.

1.5.3 Levels of Analysis

To capture the complexity of the phenomenon, the proposed framework incorporates **three interconnected levels of analysis**:

1. **Individual Level** – Focuses on the personal characteristics, agency, and lived experiences of marginalized Indian youth. This includes motivation, adaptability, skill acquisition, and career decision-making.

2. **Institutional Level** – Examines the PPPs themselves, including the roles of Indian training institutions, German employers, and intermediary agencies. Institutional quality, resource allocation, and cross-cultural capacity are central here.
3. **Policy Level** – Considers how national and bilateral policy frameworks in India and Germany shape the enabling environment for education, migration, and labour market integration. This includes education policy reforms, migration agreements, and skill recognition protocols.

This multi-level design enables the study to trace **causal linkages both vertically (from policy to individual outcomes) and horizontally (across institutional partnerships)**.

1.5.4 Analytical Logic

The analytical logic rests on two propositions:

1. **Effective PPP-led training increases employability** by delivering skills and qualifications that are in demand in the German labour market and adaptable within India.
2. **The migration outcomes of trained youth are shaped** not just by job availability but by a matrix of aspirations, policy structures, and cross-border opportunities, leading to either net brain drain or mutually beneficial brain circulation.

Thus, the framework allows for the testing of both **direct effects** (PPPs on employment) and **indirect effects** (PPPs on migration outcomes via employment).

1.5.5 Contribution of the Framework

By introducing this framework in Chapter 1, the study grounds the reader early in the causal and thematic architecture of the research, demonstrates that the inquiry is theory-informed by drawing on migration theory, human capital theory, and partnership effectiveness literature, establishes clear pathways of inquiry that will guide the methodology, data collection, and analysis, and ensures that the rationale, objectives, and significance of the study are tied explicitly to a coherent conceptual logic.

1.6. Research Design and Methodological Approach

In alignment with the overarching objective of investigating the role of **Public–Private Partnerships (PPPs)** in facilitating transnational educational and employment access for **marginalized Indian youth** in Germany, the research design is built around two interrelated conceptual dimensions:

1. The **access–employability nexus**; and
2. The **brain drain versus brain circulation dynamic**.

This section outlines the philosophical stance, design choice, target population, sampling strategy, data collection, analytical methods, and the link between methodology and research objectives for each of the two research questions.

1.6.1 Research Paradigm

This study adopts a **qualitative-dominant, constructivist** paradigm, recognising that educational access, employability, and migration trajectories are socially constructed and context-dependent phenomena. A constructivist approach is well-suited because it:

- Privileges the **lived experiences** of marginalized youth, allowing nuanced understanding beyond quantitative indicators.
- Acknowledges **multiple realities**, shaped by personal histories, institutional contexts, and policy environments.
- Values the co-construction of meaning between researcher and participants, which is essential in capturing **perceptions of fairness, opportunity, and integration**.

While the primary focus is qualitative, selected **descriptive quantitative elements** (e.g., demographic profiles, programme completion rates) will be integrated to strengthen contextual interpretation.

1.6.2 Design Choice per Research Question

For RQ1: *How do Indo-German PPP programs influence educational access and employability experiences of marginalized Indian youth in Germany?*

- **Design:** A **multiple qualitative case study** approach will be employed, focusing on specific Indo–German PPP initiatives. This design enables in-depth

exploration of variations in programme design, implementation, and participant outcomes.

- **Rationale:** The case study approach allows for a rich, contextualised understanding of the access–employability link, capturing the interplay between programme structures and participant agency.

For RQ2: *To what extent do PPP frameworks facilitate brain circulation rather than brain drain in the context of skilled migration between India and Germany?*

- **Design:** A **longitudinal qualitative exploration** using retrospective accounts from alumni, supplemented by **documentary analysis** (e.g., alumni tracking reports, migration policy documents).
- **Rationale:** Since migration trajectories and brain circulation effects unfold over time, retrospective narratives combined with institutional documentation offer a way to assess long-term patterns without requiring a multi-year prospective study.

1.6.3 Target Population and Sampling Strategy

Target Population:

- **Alumni** of Indo–German PPP programmes from marginalized backgrounds (including SC, ST, and other disadvantaged communities).
- **Programme administrators and mentors** involved in training delivery and placement.

- **Policy stakeholders** in India and Germany (government officials, bilateral programme coordinators).
- **Employer representatives** who have hired PPP-trained youth.

Sampling Strategy:

- **Purposive sampling** will identify participants with direct experience of PPP-led education and migration processes.
- **Snowball sampling** will be used to reach alumni who have settled abroad or returned to India, as such populations may be dispersed and not fully captured in programme databases.
- **Maximum variation sampling** within cases will ensure diversity in gender, geographic origin, and migration outcomes, enhancing the depth of thematic comparisons.

1.6.4 Data Collection Methods

For RQ1 – Access and Employability:

- **Structured Online Questionnaire with Open-ended items** with alumni to explore access barriers, training experiences, and employment integration.
- **Focus group discussions** with current trainees to capture collective perspectives on institutional support, peer learning, and career readiness, if applicable.
- **Document analysis** of PPP programme materials, curricula, and training evaluation reports.

For RQ2 – Brain Circulation vs. Brain Drain:

- **Follow-up interviews** with employer and alumni at different career stages to understand migration choices, return decisions, and transnational engagement, and capture perceptions of returning migrants' contributions and ongoing collaboration.
- **Policy document review** of Indo–German agreements, skill migration policies, and recognition frameworks.

Data will be collected in **two primary phases**:

1. Fieldwork in India focusing on training access and early employment outcomes.
2. Remote or in-person interviews with alumni in Germany and returnees in India, focusing on long-term migration effects.

1.6.5 Analytical Approach

Given the qualitative dominance of the study, **thematic analysis** will be the primary analytical tool. This will involve:

1. **Initial coding** – line-by-line coding of transcripts to identify emergent patterns.
2. **Axial coding** – grouping codes into thematic categories related to access, employability, migration outcomes, and policy context.
3. **Selective coding** – refining themes into core analytical narratives that address RQ1 and RQ2 directly.

To ensure **analytical rigour**:

- **Triangulation** will be applied across data sources (interviews, focus groups, documents).
- **Member checking** will be used with selected participants to validate interpretations.
- A **reflexive journal** will track the researcher's positionality and decisions during analysis.

Descriptive statistics (e.g., number of trainees placed in Germany vs. retained in India) will be used to contextualise qualitative findings but will not constitute the main analytical frame.

1.6.6 Link to Research Objectives

The methodological plan is closely tied to the **study's aims**:

- For **RQ1**, the case study and interview-based design enable the investigation of **how** PPPs expand access and **whether** these opportunities translate into equitable employability outcomes for marginalized youth.
- For **RQ2**, the retrospective and documentary aspects enable one to examine what comes after migration — i.e., if the experience and knowledge acquisition lead to brain circulation benefiting both India and Germany, or net human capital loss for India.

This combined approach ensures that both short-term programmatic impacts and long-term migration dynamics are captured, supporting a holistic assessment of Indo–German PPPs in shaping education-to-career pathways for marginalized youth.

1.7 Assumptions

This study is guided by a set of foundational assumptions that shape its conceptual framework, methodological choices, and interpretive lens. These assumptions reflect the researcher's epistemological stance and commitment to social justice, rather than serving as operational conveniences. Making them explicit helps clarify the scope, limitations, and interpretive orientation of the research.

1. Structural Inequity in Access

The study assumes that systemic inequalities—particularly those based on caste, class, gender, and geography—continue to restrict educational and employment opportunities for marginalized Indian youth. These barriers are embedded both in domestic institutions and international migration systems. As such, any intervention, including PPPs, must be intentionally equity-oriented to address these entrenched disparities. Otherwise, such programs risk replicating exclusion rather than overcoming it.

2. PPPs as Conditional Catalysts

This research views Public–Private Partnerships not as neutral or inherently exploitative, but as potentially transformative policy tools—*if* designed and implemented with inclusivity in mind. The assumption here is that PPPs can meaningfully alter life

trajectories when they incorporate elements like mentorship, contextualized language training, financial aid, and psychosocial support. However, their impact is context-dependent and not guaranteed.

3. Capability Expansion as a Core Metric

Drawing on Sen's (1999) capability approach, the study assumes that success should be measured not solely by employment or income, but by the extent to which participants gain meaningful choices, agency, and life opportunities. This moves the focus from narrow outputs (e.g., certification or placement) to broader developmental outcomes, such as empowerment, well-being, and long-term mobility.

4. Intersectional Experiences

The research assumes that experiences of marginalization are shaped by intersecting identities—including caste, gender, rural/urban origin, and language proficiency.

Therefore, it rejects a one-size-fits-all framework and supports an intersectional lens in both design and analysis. A qualitative approach is adopted to uncover how these multiple layers of disadvantage interact in shaping access and outcomes.

5. Migration as Policy-Shaped and Perception-Driven

Migration decisions are assumed to be influenced as much by institutional structures and social narratives as by individual motivations. Visa policies, credential recognition, and diaspora networks all play a role in shaping youth engagement with PPP opportunities.

This assumption informs the study's inclusion of policy analysis and institutional perspectives.

6. Brain Circulation over Brain Drain

The study is premised on the idea that international migration need not result in permanent loss (brain drain), but can enable brain circulation—where skills, networks, and innovations flow back to the country of origin. This is contingent on supportive mechanisms such as reintegration programs and diaspora engagement initiatives embedded within PPP frameworks.

7. Participant Voice as Knowledge

Methodologically, the study assumes that the narratives of program participants constitute valid and essential sources of knowledge. Rather than privileging policy documents or aggregate data alone, the research centers the lived experiences of marginalized youth to assess how PPPs operate in practice. This justifies the study's reliance on qualitative methods, particularly structured online questionnaire with open-ended items and thematic analysis.

These assumptions collectively guide the inquiry into whether Indo-German PPPs advance educational equity, transnational mobility, and long-term development. While they orient the research, they are not treated as fixed truths; rather, they will be critically examined against empirical findings to ensure analytical integrity and conceptual rigor.

1.8 Delimitations of the Study

This study explores the ways Public–Private Partnerships (PPPs) impact the education and employment careers of excluded Indian youth in the context of Indo-German transnational mobility. Specifically, it considers both the potentialities introduced by these programs as well as the structural barriers encountered by youth in accessing vocational training, language learning, internships, and PPP-mediated jobs. For reasons of conceptual clarity and methodological coherence, this section introduces the scope and delimitations that constrained the research design.

The institutional and geographical focus of the research is on India-Germany bilateral PPP programs. India, home to a large population of socially and economically underprivileged youth, is the origin country, and Germany, renowned for its dual vocational education and training (VET) system and labor market demand for skilled human resources, is the host nation. The study examines programs run by organizations such as the Indo-German Chamber of Commerce, GIZ, DAAD, NSDC International, and multinationals such as Siemens and Bosch. While emphasis will be given to conceptualization and accuracy, some linguistic flavor or institutional parlance is likely to be lost in translation. The fact that policy reports and program evaluations from institutions such as policy documents are utilized may also introduce partial reporting or select accountability-based biases. In addition to participant experiences, the study draws upon relevant governmental and institutional documents, program manuals, and policy

frameworks to analyze the structural and institutional conditions that underpin these PPPs.

The target population includes Indian youth from historically disadvantaged groups—namely Scheduled Castes (SC), Scheduled Tribes (ST), Other Backward Classes (OBCs), and rural or low-income communities—who are either currently enrolled in or have recently completed PPP-supported vocational programs in Germany. For the purposes of this study, “youth” refers to individuals aged between 18 and 30 years, a demographic that typically faces multiple, overlapping barriers to transnational education and employment access.

The programmatic scope of the study encompasses key components of PPP interventions, including German language training (especially at CEFR levels B1 and B2), vocational education and dual apprenticeships, internships and workplace placements, mentorship and integration support, financial assistance mechanisms such as scholarships, and alumni or returnee engagement. The research aims to understand how these components are structured, delivered, and experienced, with particular attention to their role in overcoming challenges related to caste, class, gender, and geographic disadvantage.

The temporal scope focuses on PPP programs implemented or active between 2015 and 2025. This ten-year window allows the study to evaluate programs within the context of recent policy developments, such as Germany’s Skilled Immigration Act and India’s expanding international skilling initiatives. The empirical data are drawn from interviews with alumni who completed their training during this period and may currently be employed in Germany, pursuing further education, or engaged in return migration.

In defining the delimitations of the study, it is important to note several intentional boundaries. First, the study adopts a qualitative, case-study methodology using structured online questionnaire with open-ended items and document analysis. As such, it does not seek to produce statistically generalizable findings, but rather to generate rich, context-specific insights into the lived experiences of a particular segment of PPP participants. The findings should therefore be interpreted as illustrative rather than representative of all Indo-German PPP outcomes.

Second, the study's scope is limited to Indo-German partnerships and does not extend to similar PPPs involving other destination countries such as Canada, the United Kingdom, or Australia. The institutional, cultural, and policy environments of India and Germany uniquely shape the dynamics explored here, and while certain insights may have broader applicability, the research does not aim for cross-national comparison.

Third, the study is focused on access to education and employment, rather than long-term integration outcomes such as citizenship acquisition, family reunification, or life satisfaction after permanent settlement. While short-term integration and retention are considered, a longitudinal analysis of participants' long-term trajectories lies beyond the scope of this project.

Fourth, the research relies on interviews conducted primarily in English, Hindi, and selected regional Indian languages, with some German-language material translated into English. While emphasis will be given to conceptualization and accuracy, some linguistic flavor or institutional parlance is likely to be lost in translation. The fact that policy

reports and program evaluations from institutions such as policy documents are utilized may also introduce partial reporting or select accountability-based biases.

Lastly, due to the dispersed and mobile status of the targeted population, participant availability could be skewed. Some gender or regional viewpoints might be underrepresented even with purposive sampling strategies aimed at ensuring diversity. By defining its scope and delimitations carefully, this study seeks to provide a deep and contextually grounded analysis of Indo-German PPPs. While its findings are not generalizable worldwide, the study seeks to provide useful, policy-focused insights into how they function at the intersection of equity, migration, and vocational opportunity for marginalized Indian youth.

1.9 Study Limitations

While this study provides valuable insights into the role of Public–Private Partnerships (PPPs) in enhancing educational and employment access for marginalized Indian youth in Germany, it is important to acknowledge certain limitations that shape how its findings should be interpreted.

1. Qualitative Nature and Limited Generalizability

This research is based on qualitative methods—primarily structured online questionnaire with open-ended items, case study analysis, and document reviews—which are effective for exploring complex lived experiences and systemic dynamics. However, the results are context-specific and not statistically generalizable to all Indian youth in PPP programs.

The purpose is to understand processes and relationships rather than to measure prevalence or frequency.

2. Sample Size and Representation

Although the study aims to include 30–40 participants from varied caste, gender, regional, and programmatic backgrounds, reaching certain sub-groups—such as female apprentices, tribal participants, or program non-completers—remains challenging. This may result in underrepresentation of some perspectives, particularly those outside institutional channels, which could influence the balance between formal program narratives and lived experiences.

3. Conceptual Ambiguity in Key Constructs

The definition of “marginalized youth” is fluid and interpreted differently by individuals and institutions. Factors such as caste, rural origin, gender, and socioeconomic background intersect with language proficiency and access to information in varied ways. This complexity makes it difficult to apply a uniform categorization or to draw direct comparisons across cases. Similarly, the “brain drain” versus “brain circulation” distinction remains contested in the literature, and participant aspirations may shift over time, complicating long-term assessments.

4. Contextual and Policy Specificity

The study’s focus on the Indo-German context—particularly Germany’s dual vocational training system—limits the transferability of findings to other bilateral or international PPP arrangements. Moreover, PPP structures and policies vary significantly, even within

Germany, and ongoing changes in immigration, education, and labor laws can affect program outcomes during the research period.

By recognizing these methodological, conceptual, and contextual constraints, the study enhances transparency and encourages careful interpretation of its results. Future research could broaden the scope by incorporating mixed methods, expanding geographic comparisons, and including underrepresented groups through targeted outreach.

1.10 Contribution of the Study

This study makes both theoretical and practical contributions at the intersection of international development, education policy, migration governance, and social equity. By investigating how Public–Private Partnerships (PPPs) shape the educational and employment trajectories of marginalized Indian youth within Indo-German mobility frameworks, the research addresses a critical gap in contemporary academic and policy discourse.

From an academic standpoint, the study extends existing literature in two significant ways. First, it brings PPPs—typically studied in the context of infrastructure or public service delivery—into the domain of transnational education and labor migration. While previous research on PPPs has largely focused on domestic reforms or public sector efficiency, little attention has been given to their function as vehicles for enabling international mobility among disadvantaged groups. Similarly, migration studies have often emphasized macroeconomic drivers or remittance flows, with insufficient attention paid to institutional mechanisms such as PPPs that actively shape skill development,

language acquisition, and integration outcomes. This study bridges those literatures by highlighting the operational dynamics and outcomes of PPPs that are specifically designed to facilitate mobility for underrepresented youth.

Second, the research is founded on a multi-theoretical approach that synthesizes the human capital theory (Becker, 1964), social capital theory (Bourdieu, 1986), and the capability approach of Sen (1999). Rather than assessing outcomes in terms of certificate or income, the research assesses to what extent PPPs raise individual agency, real choices, and extended freedom. Through the application of an intersectional lens that is sensitive to caste, gender, language, and region, the research undertakes a more nuanced examination of how different forms of disadvantage intersect to shape access, experience, and outcome. The research contributes to scholarship on educational justice and transnational mobility by placing the lived lives of youth who are often marginalized from regimes of national and international opportunity. In practical terms, the study offers actionable findings for Indo-German cooperation stakeholders in a range of interests.

It presents timely evidence to inform PPP design, delivery, and evaluation—particularly in initiatives such as the Indo-German Programme for Vocational Education and Training (IGVET), skill programs managed by NSDC International, and private-public partnerships with firms like Siemens and Bosch. By means of the contexts in which PPPs succeed or falter, the research provides insight into central design factors—i.e., mentored focus, language education, economic support, and psychosocial care—that affect effectiveness in programmatic work among marginalized youth. Macro-policy-wise, the

research contributes to worldwide debates about inclusive education, justice for migrants, and sustainable development.

It invites the assumption that merely having access to transnational education assures equitable outcomes, and instead promotes deliberately equity-guided paradigms that confront squarely the structural barriers at each level of the migration process—from recruitment and preparation to integration and return. It also facilitates rebranding the brain drain rhetoric through proposing a model of brain circulation where human talent, know-how, and social capital can be remitted to the country of origin in the guise of planned return schemes, diaspora engagement, and cross-border cooperation. The relevance of the research is disseminated across different fields.

It provides Indian policymakers with evidence-based solutions to enable socially and economically disadvantaged youth to reach global labor markets in a way that decreases domestic inequality. It offers German institutions and employers suggestions on how to integrate and support international trainees more successfully in more inclusive and productive workplaces. For implementing agencies and NGOs, the findings give insights into designing wraparound support systems that boost retention, health, and overall success. Finally, for researchers in academia, the study opens up new avenues for interdisciplinary research into how education and development partnerships worldwide can be designed to be more inclusive, accountable, and effective. Overall, this research adds to a more nuanced appreciation of the way PPPs may be more than mere technical types of labor supply arrangements, but also as causal change mechanisms that make social mobility possible, institutional innovation feasible, and international solidarity real.

It seeks to steer academic thinking and institutional practice towards more equitable, developmentally beneficial models of transnational cooperation.

1.11 Chapter Summary and Transition

Chapter 1 set the foundation for the thematic structure of this research, critically examining the function of Public–Private Partnerships (PPPs) facilitating transnational employment and education possibilities for disadvantaged Indian youth in the context of Indo-German mobility. It began by establishing the global context of labor shortages, demographic shift, and unequal access to education and migration pathways. In this context, PPPs were introduced as purportedly revolutionary instruments that, when suitably planned with an explicit equity emphasis, can transcend systemic interconnections between vocational training, migration, and employment.

The chapter articulated the central research problem: while Indo-German PPPs have proliferated in recent years, socially and economically disadvantaged youth continue to face substantial barriers—ranging from financial constraints and caste-based discrimination to inadequate language training and institutional misalignment. These challenges highlight the need for deeper empirical exploration into whether and how such partnerships genuinely improve access, foster employability, and promote sustainable mobility.

The research objectives and guiding questions were then presented, structured around two key thematic axes: (1) the access–employability nexus, and (2) the brain drain versus brain circulation debate. The working hypotheses posit that inclusive program design—characterized by language instruction, internship experience, mentorship, and

wraparound support—significantly influences successful outcomes for marginalized youth.

Furthermore, the chapter articulated the underlying assumptions of the study, including the persistence of structural inequities in both Indian and international contexts, the transformative potential of PPPs when equitably designed, and the value of participant voice in understanding systemic outcomes. The research adopts a capability-based framework to evaluate whether PPPs contribute to expanding real choices and freedoms for youth participants.

The scope and delimitations of the study were clarified, focusing on bilateral Indo-German cooperation within the vocational training sector, and on youth from historically marginalized caste, regional, and socio-economic groups. The limitations of the study—such as the qualitative design, constraints in generalizability, and data access challenges—were also acknowledged, alongside the fluid policy environments that may shape or constrain the applicability of findings.

Finally, the chapter outlined the academic and practical significance of the study.

Theoretically, it contributes to underexplored intersections between PPPs, vocational migration, and educational equity. Practically, it offers insights for policymakers, educators, and private-sector stakeholders on how to design and implement more inclusive, responsive, and developmentally productive partnership models.

Having laid this conceptual and analytical groundwork, the study now turns to a critical examination of the existing literature. Chapter 2 reviews theoretical frameworks, empirical studies, and policy debates related to PPPs, vocational education, migration,

and equity in transnational contexts. It also presents the conceptual frameworks that guide this research, positioning them in relation to the study's research questions and broader theoretical commitments.

CHAPTER II: REVIEW OF LITERATURE

2.1. Introduction

Public-Private Partnerships (PPPs) have gained significant traction worldwide as strategic mechanisms to address complex socio-economic challenges, particularly in the domains of education and employment (Hodge & Greve, 2007). In an increasingly globalized labor market, PPPs are being employed to bridge skills gaps and foster inclusive economic growth (World Bank, 2017). Germany, renowned for its robust vocational education and training (VET) system, has effectively leveraged PPPs to align policy, industry, and educational frameworks with the country's skilled labor needs (Euler, 2013). These partnerships are especially relevant in transnational settings such as Indo-German cooperation, where complementary national interests—India's demographic dividend and Germany's aging workforce—provide fertile ground for collaboration (GIZ, 2020).

Germany's dual education system, which integrates classroom instruction with practical, on-the-job training, is widely regarded as a model for efficiently preparing youth for the labor market (Busemeyer & Trampusch, 2012). In this context, PPPs enable private sector involvement in curriculum design, funding, and training delivery. Within Indo-German collaborations, such partnerships have matured into structured programs that provide Indian youth with language instruction, cultural orientation, skill certification, and work placements in Germany (Kapur & Chakrabarty, 2016). These initiatives aim not

only to address labor shortages in sectors such as healthcare, information technology, and engineering, but also to enhance the employability of marginalized youth in India, many of whom face compounded disadvantages related to caste, poverty, and rural backgrounds (Deshpande, 2011).

However, excluded Indian youth encounter numerous systemic barriers to transnational education and work. Research indicates that intersectional challenges—i.e., insufficient English or German skills, lack of social capital, and institutional discrimination—significantly interrupt their performance in global education-to-work streams (Jodhka, 2012; Naujoks, 2013). PPPs seek to counter these challenges by offering mentorship, culturally adapted instruction, and psychosocial support (Schindler, 2019). Programs like the Indo-German Skill Development Initiative (IGSDI) and Make in India Mittelstand encompass soft skills training and integration support and thereby increase employability and reduce Indian trainee dropout rates in Germany (GIZ, 2020).

Despite these hopeful trends, the long-term effects of PPPs remain under-explored. The majority of existing research concentrates on short-term indicators such as enrollment rates, certification levels, and initial employment placements (ILO, 2018), few of which include empirical evidence of long-term outcomes such as career advancement, upward mobility, or retention of foreign-trained employees in host economies. Issues also persist regarding implications for India in general, particularly brain drain—the outflow of its skilled and educated employees. Scholars such as Khadria (2007) and Docquier & Rapoport (2012) warn of uncontrolled migration undermining national intellectual capital and heightening domestic inequalities.

New school thinking on brain circulation, however, emphasizes the developmental power of international mobility. Diasporas can significantly invest back in their countries of origin via remittances, return remittances, and transfer of knowledge (Saxenian, 2005). From this perspective, transnational education and employment are more dynamic exchange possibilities rather than channels of outmigration. They become mutually advantageous to both receiving and sending nations. In this setup, PPPs can shift from their immediate function of bridging labor shortages to becoming drivers of bilateral development and centers of innovation hotspots (Chacko, 2007).

The Indo-German setting offers a compelling case to consider the double purpose of PPPs: empowering underprivileged Indian youth while, by extension, advancing broader economic and geopolitics objectives. This literature review identifies the potential along with the constraints of this current study. While PPPs have been successful in short-term vocational training and integration, it is now critical to have more specific longitudinal studies to ascertain their contribution to achieving inclusive and sustainable development. Deeper analysis from participants' everyday lives and structural analysis of policy strategies must be conducted to establish equitable transnational education and work systems.

2.2. Proposed Conceptual Frameworks

2.2.1 Education-to-Career Pipelines.

Public-Private Partnerships (PPPs) are now partnerships between the government offices and the private sector, with PPPs being crucial to address educational inequality and to

improve career opportunities for marginalized groups of people in the world. In the context of Indo-Germany, such partnerships are of utmost importance in bridging skill gaps, increasing levels of languages, and making Indian youth employable in Germany (Kwak et al., 2009). Globally, PPPs have been instrumental in revamping education systems through increased access and enhancement in quality. particularly in developing countries, they fund curriculum development, vocational training, and infrastructure construction, producing measurable returns in student performance and labor force integration where effectively managed (Robertson et al., 2012; LaRocque, 2008; Patrinos et al., 2009). While PPP models are location-dependent, they have common features such as mutual investment, shared risk management, and outcomes-based performance. For instance, programs like UK's Academies and US Charter Schools are examples of a range of PPP arrangements for educational reform. Similarly, in the South Asian countries, Bangladesh and Pakistan have used PPPs to enhance primary education access and inject employable skills into school curricula, a testament to the flexibility and scalability of such initiatives.

Germany's dual vocational training system has garnered significant interest from Indian policymakers, with various Indo-German PPPs having been undertaken to align Indian youth skill levels with German labor market demand, especially in the area of STEM (Euler, 2013). Initiatives such as the Indo-German Programme for Vocational Education and Training (IGVET) and collaborations between Indian institutions and German companies like Siemens and Bosch testify to this joint endeavor (GIZ, 2020). Such partnerships can encompass institutional twinning, curriculum joint development, and

student exchange. Organizations such as the German Academic Exchange Service (DAAD) and the Goethe-Institut play an important role in promoting academic mobility as well as cultural exchange. Additionally, German businesses that are located in India are also usually involved with offering industry-based training, thereby creating transnational employability pathways.

Language skills, particularly in German, are a highly crucial determinant of career access in such programs. Empirical evidence validates strong correlation between employability and language competencies among Indian students in Germany (Kunz & Gessler, 2021). PPPs have also innovated by adding specialized language modules into prep courses to enhance the employability of students. Most vocational schools and German universities incorporate compulsory or recommended B1 and B2 levels of the Common European Framework of Reference (CEFR). PPP-funded projects typically involve language laboratories, online modules, and immersion options, while programs like PASCH (Schools: Partners for the Future) play a significant role in early language learning for Indian students opting for higher education or vocational training in Germany.

Internship opportunities also serve as cross-connections between employment and education. Work-integrated learning, as identified by Billett (2011), creates student interest, contextual literacy, and facilitates transition to employment with greater ease.

Indo-German PPPs have increasingly emphasized integrating internships as a component of education streams, particularly for the marginalized youth, with actual exposure and mentorship. Besides enhancing technical skills, these internships also enhance soft skills like communication, team work, and problem-solving. Reports of Indo-German PPPs

show that formal internships can improve job placement by up to 40% compared to those without industry linkages. Furthermore, these placements foster intercultural competence, a valuable asset in Germany's multicultural workplace.

Systemic constraints like socioeconomic disadvantages, limited access to necessary information, and cultural accommodation barriers limit marginalized Indian youth (Bhattacharya, 2015). PPPs address these challenges through systematized pathways with outreach, scholarships, and comprehensive support systems. Outreach activities have a tendency to collaborate with NGOs and local community groups to identify and mentor students from disadvantaged areas such as rural Bihar, Jharkhand, and Odisha. In addition to educational support, certain PPP programs provide psychosocial counseling, residential support, and peer mentoring, which all contribute to reducing attrition rates and academic achievement.

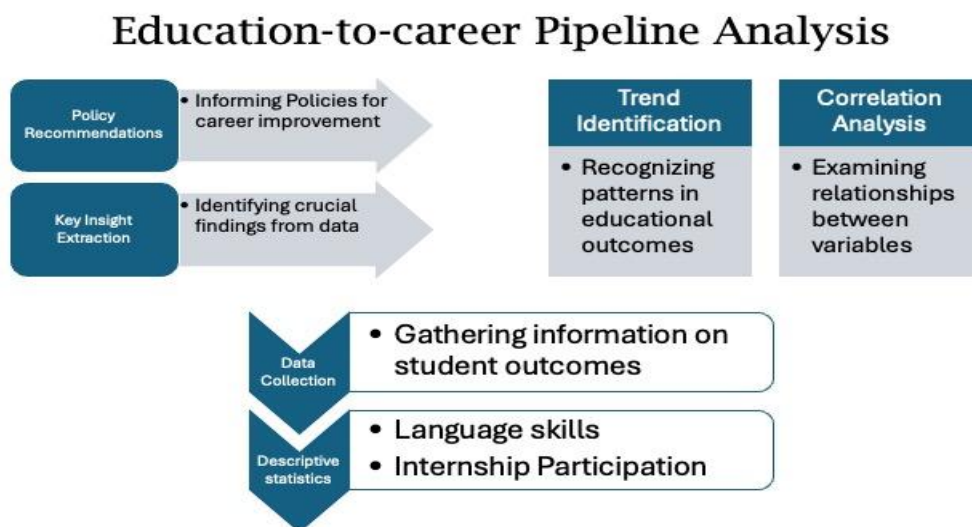


Figure 1: Focus on skill development and career pathways of migrant youth in Germany.
 Source: Based on Becker, G. & Kleinert (2021), author designed.

Figure 1 proposed in the present study favors a sequential, data-based model to understand the education-to-career pipeline. Data collection comprises surveys and institutional data to obtain demographic and academic information, ensuring varied background representation and establishing entry barriers (Creswell, 2014). Statistical analyses including correlation and regression techniques study the relationships between language proficiency, internships, and employment placement, shedding light on dependencies and causations. Descriptive statistics chart participation and skill rates, while trend detection through time series and cohort analysis monitors trends over time and pinpoints gaps. Lastly, analytics translate such findings into actionable policy suggestions, allowing for curriculum refinements, focused language intervention, and training models in line with industry.

Past research from sources such as DAAD (2022) and the Federal Institute for Vocational Education and Training (BIBB) reveals that students involved in structured PPP programs enjoy higher job placement ratios and higher job satisfaction levels. Language and internship support have been identified to reduce dropout rates substantially. For example, a longitudinal survey conducted in 2019 by GIZ identified that 78% of graduates in the PPP-program got employed within six months after graduation. Similarly, a research conducted by the Goethe-Institut identified that students acquiring B2-level German had much better integration outcomes in vocational settings than their less adept peers.

Theoretical foundations of this framework are human capital theory (Becker, 1964), which posits that investment in skill and education through PPPs enhances productivity

of the self and economic returns. Supplementing this is social capital theory (Bourdieu, 1986), which emphasizes networks and sponsorship offered by PPPs in career advancement. Capability theory (Sen, 1999) adds to this perspective by explaining how PPPs increase the capabilities of individuals—freedom and opportunity—via access and quality of education. These theories collectively point out how PPPs have consolidated career-to-education channels for disadvantaged Indian youth in Germany through a focus on language proficiency, professional experience, and evidence-based decision-making. This strategic approach, grounded in robust data gathering and analysis, offers a translatable model for multilateral transnational education contexts. Future research should focus on longitudinal tracking, student voice incorporation, and cross-sectional comparisons of multifaceted PPP models to promote greater understanding and more equitable and sustainable impacts.

2.2.2 Brain Drain and Brain Circulation.

Brain drain, defined as the emigration of highly skilled individuals from their home countries, has long been a critical concern for many developing nations. Traditionally viewed as a one-way loss of talent and investment, this perspective is evolving to recognize more dynamic phenomena such as brain circulation and repatriation, which offer promising long-term benefits to both sending and receiving countries (Docquier and Rapoport, 2012). Skilled migration should be understood as a complex process with dual effects: while outflows represent a loss of crucial human capital, the eventual return of

expatriates can lead to transformative knowledge transfer and innovation, especially within knowledge-driven economies.

The negative consequences of brain drain are well documented. When healthcare professionals, educators, engineers, and other specialists leave their countries in search of better opportunities abroad, their home countries suffer from depleted expertise in essential sectors (Kaplan, 1997). This trend is particularly acute in Sub-Saharan Africa and South Asia, regions that experience some of the highest rates of skilled emigration and consequently face severe limitations in local innovation capacity and governance (Carrington and Detragiache, 1998). Economically, countries lose the returns on their investments in education while their global competitiveness diminishes (Beine et al., 2008). Such losses exacerbate disparities between developed and developing nations and hinder national development goals.

Conversely, host countries benefit enormously from the influx of skilled migrants, who contribute to economic growth, cultural diversity, and innovation ecosystems. Studies show that Indian and Chinese engineers were instrumental in Silicon Valley's technological rise, facilitating cross-border collaborations and market expansion (Saxenian, 2006). Expatriates introduce diverse cultural and educational perspectives, enriching multinational firms' global teams and driving competitive advantage (Dustmann and Glitz, 2011).

More recently, the concept of brain circulation has reframed migration as a cyclical process rather than a one-way departure. Many skilled professionals now return to their countries after acquiring education and experience abroad, bringing back advanced

knowledge and capabilities (Wickramasekara, 2003). China and India have been most aggressive in attempting to entice these returnees with benefits such as tax incentives, research funding, and seed capital (Zweig et al., 2004). The reverse brain drain has feedback effects, with returnees feeding back into national-level innovation and entrepreneurial systems. The IT industry boom in India is a perfect example of such feedback effects, driven by technology entrepreneurs leveraging foreign-acquired skills to fuel local industry growth (Khadria, 2009).

Returnees often become key conduits for transferring global knowledge, managerial best practices, and extensive professional networks. Their contributions boost productivity at organizational and national levels, and institutions like the Indian Institutes of Technology maintain global alumni connections to facilitate research collaborations and faculty exchanges. Returnees who enter government, research, or startups further drive policy innovation and governance improvements. The successful industrialization stories of South Korea and Taiwan illustrate the transformative potential of such brain circulation models (Chang, 1999).

Host nations benefit not only from innovation but also from job creation, increased investment, and infrastructure development fueled by migrants. Skilled migrants fill labor shortages, stimulate demand in education and housing, and contribute tax revenues, justifying more open immigration policies in countries grappling with demographic challenges. Germany's Blue Card and Canada's Express Entry systems exemplify targeted strategies to attract global talent (Lowell and Findlay, 2002).

Beyond economics, expatriates foster international networks and bilateral relations that bridge host and home countries, enhancing trade, investment, and educational exchanges. Diaspora communities influence policymaking in both contexts and often serve as cultural mediators, strengthening international diplomacy and supporting cosmopolitan global cities (Portes et al., 1999; Sassen, 2001).

Recognizing the dual nature of skilled migration, many countries have adopted policies aimed at attracting and retaining talent. These include diaspora engagement programs, innovation hubs, and co-development agreements that address push factors like political instability and bureaucratic barriers (Agunias and Newland, 2012). Effective collaboration among governments and private sectors further enhances the incentives for return, as seen in China's Thousand Talents Program, where scholars returning are offered competitive salaries and autonomy in research (Cao, 2008).

Though rooted in policy and institutional frameworks, brain circulation fosters sustainable development by fostering knowledge flows, mentorship, and entrepreneurship clusters. This strengthens resistance against foreign aid dependency and earns long-run returns in terms of international competitiveness, improved research returns, and reduced economic inequality (Kapur and McHale, 2005). The brain drain narrative is therefore rewritten from irreversible loss into systemic opportunity for national development.

The theoretical foundation for the explanation of the processes relies on human capital theory that views migration as a rational investment decision to maximize the returns on human capital. Social capital theory explains the key role of networks and trust in reintegration into returnees, while world systems theory provides a macro explanation of

the transfer of skills from the center to the periphery countries. Sen's ability approach also further reinforces this information by emphasizing individual freedom and autonomy within migration decisions (Becker, 1964; Coleman, 1988; Wallerstein, 1974; Sen, 1999).

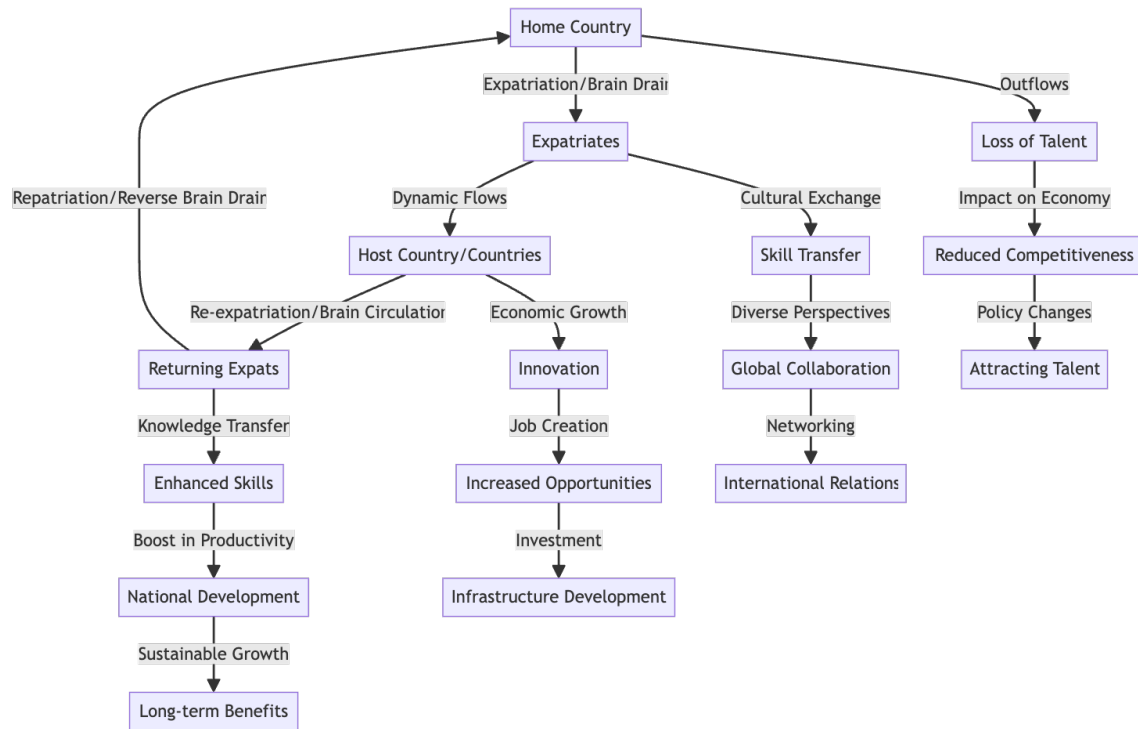


Figure 2. Reversing the Brain Drain: Evidence from Repatriates.
 Source: Based on Kaplan. (2020), author designed.

The comprehensive model of Figure 2 herein conceptualizes the migration-development nexus as an interactive dynamic of expatriation, brain circulation, and policy change.

Brain drain is an actual barrier to national development, yet clever policies can turn it into an engine of innovation, infrastructure expansion, and sustainable prosperity.

Comparative case studies and longitudinal examinations deserve center stage in such research to build knowledge of returnee integration and systemic impacts.

2.3 Literature Review

2.3.1 Public–Private Partnerships as Vehicles for Educational Equity

Public-Private Partnerships (PPPs) are now being used as key instruments to address educational inequities, especially in those systems where access and quality remain unevenly allocated. Education equity, conceived more generally as equality of education irrespective of individual or social characteristics such as gender, ethnicity, or family background, remains a global challenge (OECD, 2012). For marginalized Indian youth looking to pursue education or employment in Germany, PPPs have been a life-transforming force by expanding access, outlining clear pathways to vocational training, and integrating marginalized groups into education-to-work programs. In education, PPPs represent coordinated partnerships between public institutions and private actors—businesses, NGOs, and philanthropic organizations—created to deliver public education services (Patrinos et al., 2009).

The rationale for involving private partners in traditionally public issues is that they are better able to promote innovation, draw on cost burdens, and reform to meet shifting labor market demands (LaRocque, 2008). The education system of Germany, renowned for its dual system that integrates schooling with work-based on-the-job training, is a best practice PPP model (Busemeyer & Trampusch, 2012). In this, private firms play a major role in delivering training and funding, while state bodies are responsible for curriculum quality, certification, and quality control. This collaboration leads to strong vocational training programs, with more than half of German youths participating in such courses and around 1.3 million trainees being trained every year (BMBF, 2021). For trainees and

students of India, Germany's dual system presents an attractive proposition with its pragmatic orientation and excellent job prospects.

Indo-German collaborations have increased in recent years, offsetting Germany's population crisis and shortage of human capital with collaborative programs such as the "Make in India Mittelstand" and the Indo-German Programme for Vocational Training and Education (IGVET) (GIZ, 2020). These PPP-driven initiatives not only promote cross-border education flows but also target India's marginalized communities from its lower social strata, e.g., Scheduled Castes (SC), Scheduled Tribes (ST), and Other Backward Classes (OBCs), who are saddled with intractable educational and economic challenges (Deshpande, 2011). These barriers consist of limited access to quality education, inadequate preparatory support, and institutional bias, which are typically complemented by additional barriers abroad in the form of language barriers, cultural unfamiliarity, and lack of social capital in the host countries (Jodhka, 2012; Naujoks, 2013). In the face of these multi-level disadvantage, PPP projects in Germany have launched targeted interventions reaching beyond access. Prominent stakeholders such as the German Chamber of Commerce (DIHK) and business enterprises such as Siemens and Bosch have sponsored scholarship programs, preparation courses, and intercultural competence training to facilitate inclusive recruitment policies (BMWK, 2020). These projects aim at the inclusion of economically and socially disenfranchised Indian youth who would otherwise be left out by international education.

Mentorship emerges as an essential supporting framework in such PPP schemes, where culturally sensitive, long-term support has been proven to decrease dropout rates, build confidence, and increase job prospects (Jacobs & Hundley, 2010).

Mentorship in the context of Indo-German is usually in the nature of collaborations between German training schools and Indian facilitators such as NSDC International and the Indo-German Chamber of Commerce (IGCC). Additionally, they require financial assistance; several low-income Indian students are deterred by exorbitant costs when they are attempting to get training abroad. Initiatives such as the GIZ-funded Indo-German Apprenticeship Pilot offer subsidized education, language tuition, and living allowances, thus opening vocational training in Germany to students from rural and disadvantaged areas (GIZ, 2020). Such financial instruments are crucial in promoting equity, particularly where government scholarships based on conventional patterns of approach might not match the needs of transnational training schemes. In addition to workforce development, PPPs are also agents of social inclusion and integration.

Germany, with immigrant integration continuing to be a problem, has education PPPs to provide platforms for bridging learning and civic engagement, intercultural dialogue, and joint problem-solving, skills that are central to excluded youth growing up in foreign societies (Schindler, 2019). The responsive delivery means of these partnerships, which have a tendency to intermingle face-to-face, mobile, and local area-based learning, have proved particularly effective in reaching first-generation learners within Indian tribal and semi-urban populations. There, IT and vocational training is combined with sensitization to migration process and integration into German society (ILO, 2018). Though

promising, researchers warn against PPPs' unthinking application, warning that in the absence of strong regulatory safeguards, the partnerships may not only fail to alleviate existing inequalities but promote them (LaRocque, 2008).

Ensuring accountability, participatory program design, and continuous monitoring is essential to ensuring that PPPs work in the interests of poor and marginalized groups (Patrinos et al., 2009). In Indo-German educational cooperation, this involves incorporating PPPs in bilateral agreements that define clear social objectives, incorporate the monitoring of outcomes, and apply equitable selection criteria. Besides, involving civil society organizations in monitoring programs can make the programs more responsive to the interests of poor and marginalized Indian youth. Lastly, PPPs are strong tools for promoting educational fairness in cross-border settings.

By the integration of government control with private sector creativity and civic society participation, they can potentially craft inclusive paths that open high-quality education and training opportunities to marginalized Indian youth interested in accessing German vocational as well as higher education. However, the total realization of such partnerships depends on conscious conception, purposeful supporting mechanisms, and equity-oriented assessment designs. When used correctly, PPPs are not just economic development mechanisms but also instruments for social justice in international education

2.3.2 Language Proficiency: A Foundational Enabler for Integration

Language proficiency is a critical pillar for children to successfully integrate into education and labor markets, especially in transnational migrant contexts. For

underprivileged Indian youth aspiring to study or work in Germany, language gap continues to be one of the most significant barriers to access opportunities, achieve inclusion, and ultimately be successful. Sensitive to this, Public-Private Partnerships (PPPs) have entered an increasingly significant role in bridging language gaps, by funding, developing, and applying specialized language training programs. These programs extend beyond basic communication skills to incorporate intercultural competence, study preparedness, and adaptability in work environments. Germany's education and training infrastructure is deeply rooted in the German linguistic and cultural context, where competence in the German language is a prerequisite.

It is necessary not only for educational instruction, but also for successful engagement in vocational training, adherence to industrial safety standards, and the delivery of public and social services. The literature consistently mentions language proficiency as a key predictor of the academic success and integration into the labor market of immigrant students. For Indian youth from the lower groups—often given inferior prior exposure to German or similar language training—this insistence doubles the burden: acquiring a new language as well as accommodating new educational and cultural settings. Previously, language challenges have been a primary source of excessive dropout among migrant students and apprentices in Germany. To prevent this, German public authorities and their private partners have developed combined language packages tailored to the requirements of migrant students. The packages often are co-financed and run in PPP frameworks and form part of broader migration and integration strategies that focus on early and continuous language acquisition as the key to long-term success.

Language training has also become more industry- and context-oriented through PPPs. For example, the Goethe-Institut, in partnership with German businesses and Indian education officials, offers modular courses in German to supplement vocational instruction and familiarize students with a sector's terminology. Supported by Indo-German collaborations between public organizations such as GIZ and corporate companies such as Siemens, Bosch, and SAP, these schemes understand that language training is not an add-on but a principal pillar for integrating Indian trainees into Germany's organized labor force. These language courses usually involve cultural orientation, workplace communication, and preparation for certification language exams—e.g., the Goethe-Zertifikat or Telc—usually a prerequisite for residency, contracts of employment, or visa renewals. Moreover, the vast majority of PPP-supported projects combine language training with housing assistance and mentoring, especially for disadvantaged Indian youth from the Scheduled Castes, Scheduled Tribes, or rural communities where mobility has historically been limited.

Empirical evidence attests to the effectiveness of such programmed language training courses. Longitudinal studies show that migrants completing PPP-sponsored language training are significantly more likely to secure full-time employment and integrate well into their new environment. Migrants, for instance, who achieve a level of at least B1 proficiency tend to have an easier time entering into labor markets, health systems, and social networks, objectives which resonate with PPP ambitions regarding language as the door to integration, dignity, and empowerment.

Language competencies also cross over widely with social capital, a significant

determinant for first-generation migrants. Restricted language abilities can heighten marginalization, restrict opportunities for networking, and decrease access to informal mentoring—factors vital to attainment in apprenticeships and team-based vocational settings. PPPs surmount these barriers by delivering context-specific language training simultaneously with intercultural dialogue experience, explicitly constructing the social and cultural capital necessary for enduring integration. Some of them include community-based language learning with host families, youth clubs, and community centers to facilitate immersion and inclusive relationships. The Indo-German Young Leaders Forum and the Indo-German Training Alliance are some of the programs that include peer exchange and leadership workshops with funding from public and private sources. They have made considerable progress, but challenges remain.

Accessibility is also unbalanced, particularly for Indian Tier-2 and Tier-3 city learners who may be deprived of access to local language schools or affordable digital alternatives. Courses are also too standardized, not sufficiently responsive to students with disabilities or victims of trauma. There is also little long-term study of how languages are maintained following a return to full-time employment. The second most important gap concerns systemic incompatibility between Indian schools and German training centers, leading to course incompatibility, redundant training, and difficulties in passing visa language tests. This gap can be fixed by future-generation scholarship advocating for digital PPP platforms that enable credential tracking, progress monitoring, and adaptive learning in line with specific individual profiles. Overall, language ability is more than a technical skill; it's a main key to access, inclusion, and achievement in the

German education and job markets.

For disadvantaged Indian youth, acquiring this ability under conditions of limited resources and cultural unfamiliarity is an imposing challenge. PPPs have played a critical role in meeting these challenges by crafting and offering facilitative, tailored, and results-oriented language programs. To achieve more profound equity outcomes, however, will require continued innovation, targeted outreach, and concerted monitoring systems that transform language learning from a temporary crutch into a long-term foundation for a lifetime of incorporation. Learning from experience, particularly through apprenticeships and internships, is firmly established as a key element in vocational and professional education systems.

2.3.3 Experiential Learning through Internships and Apprenticeships

Such experiential exposure to occupational practice not only shows students the realities of actual challenges but also builds such essential workplace flexibility, soft skills, and professional networks.

Germany's dual system of vocational training and education (VET) is the finest example of this approach that blends theoretical schooling with practical on-the-job training. This dual system that incorporates public educational institutions and private enterprises in close interaction has become the cornerstone of Germany's workforce development strategy. For Indian youth from disadvantaged groups seeking opportunities from education to employment across boundaries, Public-Private Partnerships (PPPs) that involve experiential learning bring more than enhanced employability—they achieve

broader social and economic mobility. The German VET system seamlessly blends theoretical education with regulated work placements, supported by the Vocational Training Act to ensure quality and recognition of qualifications. About 60% of German school leavers every year are enrolled in this system and receive qualifications that are in great demand in the international labour market within sectors of healthcare, IT, mechanical engineering, and hospitality.

For Indian youth, particularly from disadvantaged socio-economic groups, this employer-subsidized and employer-validated path is a genuine and attractive gateway to the international labour market. Recognizing the potential, several Indo-German PPP initiatives have been developed to facilitate easy access to apprenticeships and internships. Well-known examples include the Indo-German Apprenticeship Pilot Project that involves development agencies such as GIZ and Indian institutions such as NSDC International, and private sector firms such as Lufthansa Technik and Siemens. Evidence points to the positive impact of internships and apprenticeships on education-to-formal-employment transition. Apprenticeship participants are far more likely to move into full-time employment, especially where the experiences include formal mentoring, ongoing feedback, and skill development aimed at specific needs.

This support is particularly necessary for Indian youth who often lack the social capital or institutional knowledge to navigate effectively in international labor markets. Learning by experience through PPPs also helps to reduce the persistent skill mismatch that many international students face. By involving employers themselves in the testing of skills and linking training content to industry needs, apprenticeships are real-time markers of

readiness for work and reduce dropout or attrition. As an instance, in a GIZ-funded Indo-German pilot, 78% of the participants secured full-time employment within six months of completion of their apprenticeship. Aside from vocational skills, experiential education develops critical soft skills—such as collaboration, communication, and time management—that are critical to Germany's collective workspaces but often undernourished through traditional Indian schooling. These experiences also build confidence and professional identities, enabling marginalized youth to envision themselves as capable contributors in their new environments. Another value imbued to experiential learning through PPPs is the potential to gain social capital by way of professional networks, mentorship, and institutional membership.

Youth from Indian Dalit, Adivasi, and rural populations frequently lack social capital both within and outside the country.

Apprenticeships and internships also serve as portals into professional networks otherwise closed to them, enabling young migrants to connect with mentors who mentor them not only on job responsibilities but also concerning workplace norms, managing expectations, and building confidence. Cultural mentorship in addition to technical support has been shown to improve learning outcomes and reduce dropout rates in overseas apprentices widely. Other Indo-German collaborations exemplify best practices in aligning experiential learning with transnational education-to-work pipelines.

Initiatives such as GIZ's IGVET project allow Indian technical schools to place their curricula at a level comparable to German apprenticeship standards, creating hybrid learning settings to ease transitions abroad.

Complementarily, the Indo-German Chamber of Commerce offers co-financed internships with German mid-tier firms, which provide early exposure to international industrial environments. These courses have a tendency to bundle other services—pre-departure orientation, post-placement counseling, visa services—and employ digital aids to track progress, extending continuity of care to marginalized youth who otherwise would lack familial or institutional support. Problems persist, though. German language proficiency, at the B1 or B2 level, is a hard door to German apprenticeships for Indian students, particularly those with prior study in Hindi or regional languages.

The controlling regulatory system that governs apprenticeships also inhibits flexibility in curriculum adaptation to the Indian environment without bridge programs or two-country agreements. Additionally, internships are more likely to be accessible to university students, but apprenticeships target primarily school leavers, which is incompatible with Indian academic schedules and social norms. Vocational training in India carries a perception of being a second-best option to a first choice, impacting student and parental motivation. PPPs therefore need to step their actions beyond the institutional partnership to community levels to transform these perceptions and increase take-up among young marginalized individuals. Gender disparities are also a significant concern. The participation of women in Indo-German apprenticeships remains very low, particularly among rural communities. Without gender-sensitive recruitment procedures and support schemes, PPPs risk perpetuating existing inequalities in access to international education and employment opportunities. Ultimately, internships and apprenticeships play

important roles in effective PPP models for augmenting marginalized Indian youth learning and employment opportunities in Germany.

These work-integrated learning activities simultaneously address a range of barriers: they enhance employability, provide earnings, build social capital, and prevent cultural isolation.

In order for PPPs to be in a position to realize their transformative potential, they must prioritize inclusivity, flexibility, and sustainability by overcoming linguistic, gender, and cultural barriers and enhancing monitoring mechanisms and bilateral curriculum alignment. By such integrated assistance, experiential learning is not only a pathway to employment but an entry to dignity, agency, and possibility in a transnational world.

While even the salubrious potential of Public-Private Partnerships (PPPs) to raise educational and employment possibilities is being contemplated, marginalized Indian youth pursuing transnational pathways to Germany continue to be afflicted with a complex intertwinement of structural, institutional, and psychosocial barriers. These are firmly based on systemic disparities in both the Indian and German systems, manifesting as limited access to good education, social exclusion, poverty, cultural dissonance, and discrimination.

2.3.4 Structural Barriers and the Lived Realities of Marginalized Indian Youth

While PPPs focused on equity and inclusion can reduce some of these issues, it is evident from evidence that the majority of youths still face intersecting disadvantages that hinder their education attainment and career advancement. Behind much of the suffering that

happens abroad are the entrenched inequalities of India's domestic education system. The system remains highly stratified on the lines of caste, class, gender, and geography, with Scheduled Castes, Scheduled Tribes, and Other Backward Classes students disproportionately attending under-resourced institutions and facing discriminatory classroom environments.

The rural-urban gap also acts to expand these disparities since rural youth are already at disadvantage in the access to requisite resources such as foreign language education, international curricula, or e-learning platforms. If such young people aspire to access foreign training and education in places such as Germany, then they are joining the global pipeline of migration under a disadvantage. Unlike their urban, English-speaking, or upper-caste counterparts, marginalized students typically possess substandard documentation, guidance counselors, or mentors who support them through complex visa procedures, language skills, and access to scholarship. Upon arrival in Germany, most of these initial disadvantages are compounded by host institution structural and cultural barriers. Research has established that international students and vocational trainees from the Global South, especially those from outside the European Union, are institutionalized into alienation and do not receive proper individualized academic assistance.

Implicit biases among teachers and classmates can make these challenges worse. Cultural adjustment may be intimidating and alienating for Indian youth who are not familiar with German bureaucratic expectations of behavior and communication. Discrimination, both overt and covert, is a significant hindrance. Non-white trainees and students are stereotyped negatively in workplaces and school environments, especially harsh for Dalit

and Adivasi students who are already marked out in Indian society. The intersecting marginalizations add to cultural homelessness sentiments and multiply the challenges of navigating a foreign education and work environment with no supporting social structures to fall back on at home. Economic precariousness adds one more complexity. The majority of Indian marginalized students access Germany through scholarship provisions or programs sponsored by PPP, as resources within the family or diaspora networks may be scarce.

Financing is also usually restricted to fees for tuition or training, as opposed to supporting the basic needs of accommodation, transport, and food. It is revealed that a significant proportion of international students in Germany have to work part-time to survive, which has a negative effect on their academic performance. Financial stress is inextricably linked with mental health issues, including depression and anxiety, which also disproportionately affect first-generation, low-income, and socially marginalized migrants. Without widespread support services available—like emergency grants, free counseling, or community-based personal finance programs—too many young migrants are unable to survive and thrive at school and in training. Cultural dislocation also defines the daily lives of marginalized Indian youth. The transition from the collectivist family-oriented societies prevalent in India to the individualized social world of Germany is likely to result in feelings of isolation and loneliness.

Language problems, perceptions of racism, and also the lack of culturally appropriate community places further augment such feelings of isolation, particularly among rural or tribal students. Mental healthcare, when provided, is often inadequate or insensitive to the

complex interaction of caste, race, migration trauma, and gender-specific stressors. The absence of multilingual and culturally qualified counselors discourages many students from seeking the help of their counselors, contributing to their psychosocial issues. In order to deal with these multi-faceted barriers, several PPPs have begun integrating more all-inclusive support systems that not only address educational and vocational needs but also structural and psychosocial needs. For example, initiatives like the Indo-German Apprenticeship Pilot incorporate language and vocational training alongside subsidized accommodation, transport allowances, and social orientation training.

Other programs, such as the SAP–NSDC International Fellowship, include mentorship, mental health seminars, and peer support groups specifically tailored for students in underprivileged social strata. Beyond formal institutional actors, civil society respondents like diasporic Indians, religious institutions, and intercultural NGOs also contribute to wraparound services often overlooked by formal interventions. Cultural festivals, kitchens, prayer groups, and helplines have all served vital roles in creating safe spaces for marginalized youth to belong and feel psychological safety. The Internet has also served to bridge support gaps by providing online mentor platforms with admissions advice, accommodation advice, and mental health advice specifically tailored for underrepresented Indian applicants. Despite such innovations, the majority of PPP projects remain small in scope, inadequately funded, and unorganized, with poor coordination of stakeholders in India and Germany. An ongoing shortage is the non-availability of caste, class, and gender-disaggregated data, which restricts the ability to evaluate equity impacts and develop interventions based on that.

Besides, a lack of longitudinal follow-up does not allow one to quantify whether the support mechanisms translate into long-term educational attainment, employment, and social integration. Critics further observe that the majority of PPPs address employability and skill acquisition without sufficiently addressing the underlying structural forces supporting uneven access and success. For these partnerships to have their transformative impact, they will have to shift from the provision of services towards emerging as active agents of policy advocacy and structural transformation within India's education system and Germany's migration and labor systems. Generally, India's excluded youth who seek transnational training and education in Germany are faced with systemic obstacles and material realities as a result of entrenched inequality, economic insecurity, cultural exclusion, and institutional marginalization. Where PPPs may mitigate some of these problems through innovative, equity-based designs, resilient transformation requires holistic, participatory, and policy-sensitive approaches that integrate fiscal, psychosocial, and cultural assistance.

The future of transnational PPPs lies not in work or migration facilitation alone but in opening channels to dignity, voice, and long-term social inclusion.

2.3.5 Toward Inclusive and Adaptive PPP Frameworks

Public-Private Partnerships (PPPs) in education and training have shown great promise in addressing structural inequalities and increasing the employability of marginalized populations. Yet, higher complexity within transnational migration, shifting labor markets, and new social justice requirements demand that PPP strategies change to fit a

new paradigm. Conventional models—far too often myopic in their attention to brief training and hiring placement—risk disappointing marginalized Indian youth operating the Indo-German education-to-career pathway unless they are rewritten to become more deeply engaged with the development, cultural, and structural issues that these youth face.

Participation in PPPs must exceed access, and systemic design must acknowledge and actively respond to historical exclusions and social inequalities. This means ensuring that the most marginalized—oppressed caste groups, tribal communities, women students, and first-generation students—are really able to participate and benefit. Conventional PPP projects have traditionally prioritized scope and efficiency and have had a tendency to overlook the diverse social identities, learning styles, and lived experiences of these constituencies. An equity-based strategy involves setting specific inclusion goals, building outreach plans for hard-to-reach populations, and providing differentiated assistance such as financial support, language assistance, mental health counseling, and mentoring. Indo-German vocational training schemes organized by agencies such as GIZ have tested affirmative recruitment, gender balancing, and rural outreach schemes designed specifically to admit women and tribal youths, demonstrating the impact of such targeted interventions.

Besides, true inclusiveness requires intersectionality integration into monitoring and evaluation systems. Success should be measured not just by placements in employment or certificates received but also by tracking participation, retention, and performance among the historically excluded groups with disaggregated data by caste, gender, and

socio-economic status. This transparency ensures learning and program improvement continually so that PPPs can react effectively in real time.

Flexibility is equally essential. In the context of more and more dynamic labor markets, immigration regimes, and technological disruption, strong PPPs must be capable of bending curricula, delivery systems, and supporting frameworks in response to feedback from learners and external shocks. The COVID-19 pandemic demonstrated this requirement quite vividly, as Indo-German programs quickly transitioned to online and hybrid approaches, facilitating continuity and providing access to youth in hard-to-reach or under-served locations. Modular curriculum has also become a characteristic of adaptive programs, allowing students to put things on hold and rejoin learning at their changing financial or personal circumstances—a crucial flexibility for marginalized youth who may be juggling caregiving, health problems, or income responsibilities.

Localization strategies, such as publishing materials in local languages and using alumni as peer teachers, also provide greater relevance and engagement for first-generation students who are not used to dominant educational cultures.

Such flexibility and inclusion, though, critically depend on robust institutional cooperation. Indo-German PPPs are generally characterized by fragmentation with many agencies operating in silos in the absence of shared goals, monitoring tools, or information systems. Experts advise transnational governance models enabling collaborative curriculum design, reciprocal recognition of qualifications, and associated student tracking. A prime example is the Indo-German Skills Ecosystem Framework proposed by NSDC International and BIBB, in which a bilateral board co-chaired by

Indian and German members is to take charge of quality assurance, ethical recruitment, and national labor needs alignment. Alliances with Indian civil society organizations at the local level are also crucial, as these are locally entrenched in communities and can serve as cultural bridges, enhancing outreach and contextual sensitivity.

Expanding the indicators applied to quantify PPPs is a further key action. Historically, such measures of numbers of trainees placed or skills certified do not serve to reveal the overall development contribution of these programs. More and more, recognition is being given to the need to include well-being and psychosocial outcomes of self-esteem, mental health, and social relationships, in addition to civic engagement and longitudinal career outcomes. Measuring transferability and future-proofing adaptability against likely changes in the future labor market adds even more depth to this multi-faceted view.

UNESCO and the World Bank, among other institutions, have started incorporating such holistic frameworks as they realize economic performance figures alone are inadequate for determining the efficacy of cooperation in education.

Although these are promising directions, there are still many hindrances. The private sector's short-term funding cycles discourage the investments required for inclusive outreach and responsive programming in the long term. Private sector partners may resist costly modifications like disability inclusion or rural outreach without the incentives of governments. There is also the risk of elite capture, where PPP benefits accrue disproportionately to urban, upper-caste, and already advantaged groups and further fortify existing disparities inadvertently.

In order to meet the sophisticated demands of marginalized young Indians in the Indo-German context, PPP models must evolve from fixed, narrowly tailored designs. The future belongs to partnerships that embed equity, responsiveness, and contextual relevance in their very core—prioritizing diverse learners' realities, highlighting holistic well-being, and fostering cooperative governance across borders and sectors. With adequate backing, these next-generation PPPs can not only facilitate economic mobility but also serve as vehicles for social justice and systemic transformation.

2.3.6 Brain Drain vs. Brain Circulation: Implications for Transnational PPPs

Skilled migration into so-called "brain drain" has long been a cause of worry for developing countries like India. As increasing numbers of disenfranchised Indian youth are being granted access to education and employment opportunities through Public–Private Partnerships (PPPs) abroad, particularly in Germany, several key questions emerge regarding the broader implications of such initiatives. Are they creating permanent Indian talent loss, or do they facilitate a more dynamic regime of "brain circulation" that ultimately benefits both homeland and host countries? This fluid debate is particularly pertinent within the framework of Indo-German transnational collaboration, where PPPs are able to negotiate the tension between individual mobility and collective development.

Traditionally, brain drain is interpreted as the migration of talented individuals from underdeveloped nations to more developed nations, resulting in a deficit of intellectual and technical capital in the sending nation. India's vast but unevenly endowed population

has experienced chronic talent exports, especially in fields of information technology, engineering, medicine, and academia. PPPs that allow poor Indian youth to study and work in Germany are generally sold as development instruments; but their issues begin when the majority of graduates choose to remain abroad, attracted by better professional prospects, higher incomes, or more tolerant social environments. These trends raise specters of domestic capacity loss, especially when this migration has been subsidised from the public purse.

Germany's demand for skilled manpower in eldercare, mechanical profession, and IT aligns with India's underemployment of youth so that this mobility avenue becomes desirable and strategic. But without skill channels to send skills, innovation, and resources back to India, this mobility risks reinforcing structural imbalances in the sending nation. To this, scholars have advocated the brain circulation hypothesis as a better model to the zero-sum brain drain. According to this hypothesis, global migration has positive benefits when migrants remit with enhanced capabilities, form cross-border networks, or contribute to development through diaspora linkages. Mobility in this context is not automatically bad but can induce innovation systems, knowledge flows, and cooperation on both sides.

Indeed, the Indian diaspora community in Germany has become increasingly active in technology entrepreneurship, education, and healthcare. Alumni networks, venture investments, and mentorship programs demonstrate the way in which diaspora professionals exist to advance home-country institutions and students. Indo-German PPPs can leverage this potential by creating formal mechanisms for reverse mentoring, joint

research proposals, and visiting faculty opportunities for Indian-origin professionals abroad. Moreover, two-way migration of top talent is now no longer uncommon. Projects like the Global Talent Initiative, initiated by NSDC International and the Indian Ministry of External Affairs, encourage diaspora talent to come back with fast-track visas, leadership roles, and incubation funds for startups.

In this new scenario, PPPs are instrumental in shaping the trends of high-skilled migration. Through the imagination of policies that govern youth mobility, education, and career paths, PPPs can be placed strategically to not only export talent but forge transnational human capital that migrates across borders to the benefit of all. Strategies to achieve this include return incentive programs with scholarships, fee waivers, or forgiving loans with conditions in the form of service commitments in India. Institute-hosted alumni networks such as that of the Goethe-Institut and Indo-German Chambers of Commerce may also facilitate mentorship, course planning, and industry links. Tele-employment supported by digital infrastructure and facilitating policies may also offer possibilities for Indian-origin skills in Germany to be engaged with Indian clients and universities. In addition, migrants who acquire capital and reputation abroad tend to re-invest in entrepreneurship, health, and education in their countries of origin, and PPPs can enable co-developing modalities to channel diaspora-led investments into vocational schools, incubators, or social enterprises.

Despite these positive trends, brain circulation is enabled by deliberate policies and supportive environments. Many marginalized Indian youth are also faced with barriers such as insecure visa status, fees, and limited reintegration channels that deter their return

or productive engagement in development activities back home. In addition, without proper safeguards, PPPs may become mechanisms of extraction, in which foreign governments and private companies disproportionately benefit from publicly educated Indian labor without corresponding investments in Indian labor systems or education. These forces risk turning PPPs into market-driven export pipelines rather than cooperative, mutually driven partnerships. Gendered dimensions add more complexity to these challenges; women, especially from lower castes or tribal groups, often encounter extra obstacles in return migration due to cultural commitments, caregiving, or employment market discrimination, underscoring the need for inclusive, intersectional PPP designs.

To realign PPPs towards actual brain circulation, India-Germany bilateral policy regimes are needed. Co-development of migration partnership arrangements that promote circular migration, mutual recognition of qualifications, and joint investments in sending institutions can serve as a basis for balance mobility. PPP regulatory bodies can track return rates, diaspora engagement, and reinvestment streams to ensure accountability. Skill transfer systems that allow for seamless labor market mobility across borders without administrative expenses add more to this vision. World policies, including the Global Compact for Migration and the Sustainable Development Goals, also give priority to safe, regular, and orderly migration, and these goals particularly coincide with those of PPP towards transnational human capacity building rather than just talent exportation. Ultimately, brain drain vs. brain circulation is critical to understanding the long-term implications of PPPs for poor Indian youth. While such alliances provide much-needed

access to global talent and labor markets, they have the tendency to exacerbate local capacity deficits unless situated within broader transnational development strategies. Literature thus calls for re-imagining PPPs not as uni-directional pipes of brain drain but as two-way, equity-based systems ensuring knowledge exchange, investment, and institutional partnership. Skilled migration is no longer a tale of loss in this vision but a tool of collective growth and systemic change.

2.3.7. Key Research Variables and Conceptual Linkages

This section introduces and explains the most important research variables that are going to be focal points of the study of Public-Private Partnerships (PPPs) and their impact on the educational and labor career of marginalized Indian youth in Germany. The aim of determining and defining these variables is to provide an exact basis for the empirical analysis of the study, so it is possible to better understand how certain factors affect the results of PPP-supported programs. These variables are categorized into contextual/control, independent, and dependent variables, and will be analyzed and measured cautiously to assess the effectiveness and the level of influence of PPPs in this context.

2.3.7.1. Dependent Variables

1. Educational Access

Educational access is the extent to which India's marginalized youth, particularly marginalized youth, are able to partake in and benefit from education

opportunities facilitated through PPPs in Germany. In this research, educational access will be monitored using several indicators, including the percentage in which the participants complete language courses, development of language competencies, and involvement and performance in vocational studies and skills training programs. These are the ability of the participants to obtain new skills and knowledge that enable them to become part of the German labor market. In addition, the study will investigate how these learning experiences affect their integration into German society outside of academic achievement.

2. Employability Outcomes

Employability impacts are interested in how participation in PPP programs affects the employability and career path of marginalized Indian youth when they complete their educational studies in Germany. Key indicators for this variable include job placement in the German labor market, long-term employment retention, salary career progression, and general career satisfaction. These results will then be employed to determine the overall success of PPP interventions in increasing the employability of its participants. Special care will also be devoted to the nature of employment opportunities on offer, i.e., whether the employment is aligned with the participant's field of study or if it is nearer to low-skilled work. The introduction will also explore if these outcomes vary according to the nature of PPP intervention (e.g., language training, internship, or mentorship).

2.3.7.2 Independent Variables

1. Type of PPP Intervention

One of the study's independent variables is the nature of intervention that is provided under PPPs. This kind of variable is important because different kinds of support mechanisms might have disparate implications for participants' educational and employment outcomes. The major types of intervention that are being explored are:

- **Language Training:** How well German language training courses improve the communication skill and workplace integration of the participants will be assessed by this study. Language proficiency is crucial for social integration as well as securing professional employment in Germany.
- **Mentorship:** Mentorship is an important component in walking participants through their learning and working careers. In this research, an investigation of how mentorship schemes, usually facilitated by industry experts or alumni, assist in boosting participants' self-confidence, career hunting skills, and networking will be conducted.
- **Internships and Apprenticeships:** Work-integrated learning forms the core pillar of the majority of PPPs. The impact of internships and apprenticeships on the improvement of participants' practical skills, employability, and professional networks in Germany will be examined in this research. Internships and apprenticeships are usually the bridge

between academia and the job market, boosting both the career opportunities and employability of the participants.

2. Policy Environment

The Indian and German policy context plays a major role in shaping the PPP design and effects to a large extent. These policies include bilateral agreements, visa policy, labor market integration policies, and education systems that outline the limits within which PPPs operate. Policies in India that control admission of marginalized communities into higher education and vocational training will be considered, and policies in Germany that facilitate or deter the integration of foreign workers and foreign students into the domestic labor force will be considered. Cooperation or inconsistency between these policies can significantly impact the effectiveness of PPP programs in facilitating long-term career growth among program participants.

2.3.7.3. Contextual/Control Variables

1. Caste and Gender

Caste and gender are two major intersectional factors that potentially influence the experience and outcome of PPP program participants. The evidence is that oppressed youth from lower castes in India face severe issues in educational and occupational mobility, and these can affect their access and performance in PPPs (Subrahmanian, 2014). Gender, particularly the life course of women from

weaker sections, could further complicate the trajectory of oppressed youth in international education. The study will also be attentive to gendered and caste-based inequalities in access to resources and opportunities, and look at how these shape the access to education and work in Germany.

2. Rural vs. Urban Background

The geographic origin of participants—rural or urban areas in India—can also influence their PPP experiences. Rural youth generally have more obstacles in gaining access to quality education and vocational training in India. When such students take part in PPP programs, their starting disadvantage in education can decide if they have a chance to reap the benefits of these experiences. This study will then compare what occurs to youth who live in rural and urban settings, establishing whether rural youth are behind or gain from specific interventions directed to their particular situation.

3. Previous Educational Experience

The participants' educational past before the initiation of the PPP programs will be controlled for in this study as well. Education received earlier, like the level of formal schooling attained and the character of education received, can have an impact on the effectiveness of PPP interventions. For instance, those with more prior exposure to education or having high-end educational school graduation would likely be affected differently by the intervention than less educated ones. By controlling for these variables, the study can then observe and isolate the exact

effect of the PPP interventions on education access and employment outcomes irrespective of the participants' educational levels of departure.

2.3.7.4. Conceptual Linkages and Framework

The relationships among these variables constitute the conceptual framework of the study. The prime focus is to determine how the character of intervention (independent variable) influences educational access and employability outcomes (dependent variables), with due regard to the impact of caste, gender, geographical background, and previous education experience (control variables). This framework aims to chart the complexity of how these variables interact and how they can jointly impact the success of marginalized youth in transnational education and labor streams. Through an analysis of these dynamics, the research will provide insights into the nature of PPPs and how they can be optimized to promote individual success as well as group social progress.

2.3.8. Summary of Literature Review

Public-Private Partnerships (PPPs) have long been established as effective means of enhancing educational equality and employability. In Germany, PPPs integrate public governance with private energies to deliver high-quality vocation-specific education tailored to the specifications of industry (Busemeyer & Trampusch, 2012). These courses tend to offer comprehensive support—e.g., German language classes, paid apprenticeships, and career counseling—yielding a robust model of integrating Indian youth, in particular, into the German labor market effectively (GIZ, 2020; BAMF, 2020).

For adolescents from Scheduled Castes, Scheduled Tribes, and rural India, PPPs grant exposure to training that would otherwise be unaffordable based on India's systemic disparities in the education system (Nambissan, 2010; Deshpande, 2011). Language training has also been seen to enhance not only communication skills but also cultural adaptation and social integration, facilitating integration abroad (Schindler, 2019; Dustmann & Fabbri, 2003). Internship and apprenticeship work-integrated learning bridges the practice-theory gap and helps students develop professional networking and job-readiness competencies (OECD, 2014; IGCC, 2023). Furthermore, integrated mentorship programs foster psychosocial comfort, build confidence, and form a sense of belongingness—issues of deep concern for excluded youth to combat racial and caste discrimination in alien milieus (Putnam, 2000; Khan & Rizvi, 2020).

However, the literature points to significant limitations. PPPs tend to focus on employment outcomes without sufficient attention to long-term social integration, mental health, or systemic integration (UNESCO, 2020). Most initiatives are plagued by issues of scalability, sustainability, and cultural contextualization, causing participation to be disproportionate along caste, class, and gender lines (Subrahmanian, 2014).

A growing issue is the broader impact of PPP-facilitated mobility on India's human capital pool. As much as Germany benefits from the immigration of skilled Indian youth, the extended unavailability of this human asset for the Indian economy raises ethical issues regarding brain drain and sustainable development (Khadria, 2007; Kapur, 2010).

In contrast, the brain circulation paradigm offers a more reciprocal framework, emphasizing the potential for migration to enable knowledge transfer, diaspora

investment, and institutional partnerships that benefit both sending and receiving countries (Saxenian, 2005; Choudhury & Kundu, 2021).

2.4. Identification of Study Gaps

Firstly, existing scholarship recognises that PPP initiatives—language courses, mentorship, internships—are intended to level the playing field for immigrant learners, yet it rarely disaggregates outcomes for marginalised Indian youth by caste, rural origin, gender identity or linguistic disadvantage (Jodhka 2012; Nambissan 2010). Moreover, the few studies that do address these interventions seldom trace participants beyond completion, so there is scant empirical evidence linking programme engagement to sustained employment, upward mobility or civic participation (Becker & Kleinert 2021). In short, we lack rigorous, intersection-sensitive data on whether PPP support actually translates into durable educational and labour-market gains.

Secondly, at the policy level, research tends to frame PPPs generically, without comparing governance models or assessing their developmental repercussions for India. Crucially, little is known about whether such partnerships accelerate a one-way exodus of talent (brain drain) or can be structured to promote circular migration that benefits both countries (Docquier & Rapoport 2012; OECD 2017). Absent this macro-economic lens, policy prescriptions remain broad and untethered to bi-national realities (NSDC International 2022).

2.5. Study Purpose

This study aims to address existing research gaps by investigating how Public-Private Partnerships (PPPs) shape the educational and employment trajectories of marginalized Indian youth in Germany. It focuses on evaluating the effectiveness of PPP-supported programs—particularly language training, mentorship, and internships—in overcoming systemic barriers and facilitating smoother transitions from education to career.

Beyond individual experiences, the study also explores the broader policy and developmental implications of transnational PPPs. It critically examines whether these partnerships contribute to a one-way brain drain or whether they can be restructured to foster brain circulation, thereby enabling mutual benefits for both India and Germany through the global mobility of skilled youth.

Employing a mixed-methods approach that combines qualitative interviews with quantitative outcome analysis, this research centers the lived experiences of marginalized participants while connecting micro-level narratives to macro-level policy dynamics.

Ultimately, it seeks to generate evidence-based, culturally sensitive, and developmentally conscious insights to inform the design, implementation, and evaluation of more equitable and effective PPPs.

2.6. Research Questions (RQs)

RQ1. How do Public-Private Partnerships (PPPs) impact educational access and employability outcomes for marginalized Indian youth participating in programs in Germany?

RQ2. To what extent do PPP frameworks facilitate brain circulation, rather than brain drain, in the context of skilled migration between India and Germany?

2.7. Chapter Summary and Transition

This chapter provided a comprehensive literature review on how Public–Private Partnerships (PPPs) influence the educational and employment trajectories of marginalized Indian youth in Germany. The review highlighted the transformative potential of PPPs in addressing systemic inequities in access to high-quality vocational education and labor market integration. Germany’s dual vocational training system—widely recognized for its effectiveness—was shown to offer promising pathways for Indian youth through structured work-based learning, industry-aligned curricula, and collaboration between state and corporate actors.

Language proficiency emerged as a foundational enabler for integration. PPP programs involving German language training—especially Occupational Contextualized Language Training—are essential to improve employability, reduce dropout, and promote social inclusion. Cultural accommodation and psychosocial support embedded in language training have been found to be essential for marginalized learners to adapt to new settings. Experiential learning via internships and apprenticeships have also been found to be a key component in getting individuals career-ready. These encounters not only bridge the space between work and school but also enable intercultural competence, professional networks, and soft skills.

Literature further pointed out how structural barriers—caste-based, gender-based, geography-based, and class-based—constrain Indian youth to participate and succeed in transnational education. The system inequities are subsequently aggrandized by the discrimination, economic vulnerability, and social exclusion they face when they arrive in Germany. While PPPs aim to offer wraparound services such as mentorship, housing assistance, and mental health support, gaps remain in coverage, sustainability, and responsiveness to intersectional disadvantage. The lack of disaggregated data further obscures equity outcomes, making it difficult to evaluate which groups are benefitting most—or being left behind.

A notable thematic concern in the literature was the long-term developmental impact of PPP-facilitated skilled migration. While Germany addresses its labor shortages through these partnerships, India risks experiencing a permanent loss of talent—raising the specter of brain drain. However, newer perspectives on brain circulation suggest that skilled migration can yield mutual benefits if mechanisms are in place to facilitate return migration, diaspora engagement, and knowledge transfer. Alumni networks, digital connectivity, and bilateral policy innovations have been proposed as ways to harness the developmental dividends of mobility.

Lastly, the chapter introduced a conceptual framework linking PPP interventions (such as language training, mentorship, and internships) to educational access and employability outcomes. It also identified key moderating factors—such as caste, gender, and rural origin—that shape individual experiences. The review concluded that inclusive and

adaptive PPP frameworks must go beyond narrow employment metrics and embrace holistic indicators of well-being, inclusion, and long-term development.

In summary, while PPPs offer significant promise for advancing equity and opportunity among marginalized Indian youth, their success hinges on intentional design, robust evaluation, and sustained cross-sectoral collaboration. These partnerships must evolve to meet the realities of an interconnected, unequal world—serving not only as pipelines to employment but as engines of transnational justice and systemic transformation.

CHAPTER III: METHODOLOGY

3.1. Introduction

Public–Private Partnerships (PPPs) have emerged as strategic mechanisms for aligning education systems with labor market demands while promoting social inclusion and cross-border collaboration. In the context of Indo-German cooperation, initiatives such as the Indo-German Programme for Vocational Education and Training (IGVET) and the Make in India Mittelstand offer marginalized Indian youth access to Germany’s dual vocational training system. These programs typically combine language instruction, mentorship, internships, and cultural orientation, aiming to enhance employability and reduce systemic barriers linked to caste, gender, and rural disadvantage.

Despite increased policy interest and programmatic investment, the current evidence base remains largely focused on short-term outputs such as placement rates and certification achievements. Far less is known about the long-term impacts of PPP-supported pathways—particularly regarding sustained employment, income progression, and psychosocial integration among disadvantaged youth. Additionally, an ongoing debate surrounds the developmental implications of such transnational mobility. While some scholars and policymakers highlight the potential of PPPs to facilitate “brain circulation”—where skills and knowledge eventually benefit the country of origin—others caution against the risks of permanent migration and widening social inequities through selective talent extraction.

This study addresses these gaps through two interrelated qualitative research questions:

RQ1: How do Indo-German Public–Private Partnership (PPP) programs influence educational access and employability experiences of marginalized Indian youth in Germany?"

RQ2: To what extent do PPP frameworks facilitate brain circulation, rather than brain drain, in the context of skilled migration between India and Germany?

To explore RQ1, the study adopts a qualitative design based on structured online questionnaire with open-ended items and analysis of relevant program documents. This approach enables the investigation of how intersecting social identities—such as caste, gender, and geography—mediate participants’ access to opportunities and shape their employment trajectories and integration experiences in Germany.

RQ2 is similarly addressed through a qualitative, exploratory design, employing interviews and document analysis to examine how PPPs influence decisions around return migration, diaspora engagement, and transnational knowledge exchange. Rather than employing grounded theory in the formal sense, the study uses thematic analysis to identify recurring patterns and concepts that explain under what conditions PPPs may contribute to brain circulation.

Situated within a broader conceptual matrix of equity, migration, and global development, this chapter lays out the methodological foundations of the research. It describes the research design, data collection procedures, analytic methods, and ethical procedures for each research question. In doing so, it seeks to provide in-depth, practitioner-based knowledge for policymakers, educators, and industry leaders

committed to developing inclusive and sustainable PPPs that advance human capital and social justice.

3.2. Methodology for RQ1

This study adopts a qualitative approach to learn how Indo-German PPP initiatives are influencing education access and employability experiences for marginalised Indian youth in Germany. Because of the complexity of transnational movement and intersectional disadvantages of caste, gender, and rural origin, a qualitative design enables a more nuanced understanding of the lived experiences informing programmatic outcomes.

The primary data collection technique for RQ1 comprises structured online questionnaire with open-ended items with approximately 20–30 respondents, including former PPP beneficiaries, program mentors, and employers involved in Indo-German vocational training programs. The aim of these interviews is to discover the perceptions of the participants regarding the support received, transitional issues encountered in the integration into the German labor market, and insights into how social identity influenced their access to and navigation of the training and employment pathways.

To complement analysis and provide contextual anchoring, document analysis is also part of the study. Program documents that are relevant—annual reports, internal evaluations, and training curriculum, for example—will be reviewed to understand structural elements such as language training modules, internship placements, mentorship systems, and completion requirements.

Thematic analysis will be employed in identifying recurring patterns within the data. These include language-related challenges, psychosocial support deficits, integration problems, and mismatches in training and job placement. Braun and Clarke's six-phase process will be utilized in coding, which will facilitate the orderly identification and interpretation of overriding themes that crosscut participant narratives and institutional documents.

With its focus on first-hand accounts and institutional practices, this qualitative approach enables an in-depth and equity-focused examination of PPPs as facilitators—or barriers—to education and employability among marginalized young people. The methodological direction aligns with recent calls within the literature for deeper, narrative-based evaluations of international vocational initiatives (Becker & Kleinert, 2021; Jodhka, 2012), particularly in transnational and intersectional contexts.

3.2.1 Research Design and Rationale

This study adopts a qualitative case study method in examining how Indo-German PPPs influence educational opportunities and labor market outcomes for marginalized youth in India. The rationale for a qualitative approach is its capacity to generate detailed, contextualized insights into the daily life experiences of participants, and especially with respect to complicated, intersecting social identities such as caste, gender, and rural background (Jodhka, 2012). Rather than generalizability through numeric patterns, this design foregrounds depth, nuance, and meaning, which suits the interpretive goals of this project.

By focusing on in-depth accounts from former trainees, program administrators, and employers, the study is capable of exploring the social, cultural, and institutional processes that shape participant experiences in PPPs. This enables not only an exploration of what outcomes, but how and why those outcomes occur in a transnational vocational training setting.

Case study research is particularly well-suited to PPP research because the programs operate at the intersection of policy, education, and labor markets. Qualitative research allows the study to bridge structural level analysis and individual level narrative, accessing how institutional arrangements meet life courses. It also allows for investigation into intangible aspects such as quality of mentorship, experiences of inclusion or exclusion, and psychosocial barriers—dimensions often omitted in purely quantitative studies (Busemeyer & Trampusch, 2012).

The research is guided by an equity-oriented lens, drawing attention to the ways in which PPPs may either mitigate or exacerbate structural disadvantage. This focus aligns with emerging literature that emphasizes the need for policy-relevant, context-sensitive evaluations of international skills mobility programs (Becker & Kleinert, 2021).

3.2.1.1 Data Collection

The study will conduct approximately 40 structured online questionnaire with open-ended items with a purposive sample of key stakeholders, including alumni, current trainees, program coordinators, and German employers. Sampling will aim for diversity across caste, gender, and rural–urban lines. Interview guides will cover topics such as

language training experiences, quality of mentorship, discrimination or exclusion, and post-program career trajectories.

3.2.1.2 Data Analysis

Interviews will be transcribed and analyzed using **thematic analysis**, guided by Braun and Clarke's (2006) six-phase framework. Coding will focus on identifying recurring themes such as "credential recognition challenges," "social capital development," or "integration fatigue." Analytic memos will be used to link emerging categories to the conceptual framework of the study. Credibility will be enhanced through **member checking** and **peer debriefing** strategies (Patton, 2015).

3.2.1.3 Ethical and Practical Considerations

The study will be carried out within institutional ethical guidelines. All participants will receive bilingual informed consent forms, and pseudonyms will be used to protect confidentiality. Audio recordings will be encrypted and stored securely, with particular precautions taken for participants who may have insecure migration status. To promote inclusive research relationships, some of the alumni will be invited to serve as peer researchers, conducting interviews and interpretation of findings.

3.2.2 Methodology

This study adheres to a qualitative methodology in examining the manner in which Indo-German PPP initiatives influence educational access and employability pathways of

marginalized Indian youth. The research design is placed in the frameworks of case study research and seeks to obtain detailed, contextualized reports reflecting the lived experiences of program beneficiaries, facilitators, and associated stakeholders.

The primary data collection method comprises structured online questionnaire with open-ended items with approximately 30–40 stakeholders, including alumni of PPP programs, trainees, program directors, NGO staff, and German employers. The interviews aim to cover how PPP interventions—language classes, mentoring, and internships—influence participants' access to employment, integration within the German labour market, and career trajectories. In parallel, program documents (training curriculum, internal reports, evaluation summaries) will be reviewed for institutional context and to enable triangulation.

This qualitative design is particularly appropriate given the study's intersectionality and transnational mobility emphasis. Rather than foregrounding statistical generalizability, it seeks to illuminate the social, cultural, and structural processes that shape individual-level outcomes. This design aligns with an equity-focused inquiry and allows for an understanding of how caste, gender, and rural disadvantage intersect with vocational migration trajectories in Germany (Jodhka, 2012; Becker & Kleinert, 2021).

Thematic analysis will be used to identify repeating patterns and themes within the data.

This entails coding participant narratives for the major concepts of, for instance, "credential recognition challenges," "language barriers," or "social capital development."

The use of analytic memos will enable the development of conceptual links between developing categories and the general theoretical framework. Member checking, peer

debriefing, and attention to reflexivity will enhance the trustworthiness of the findings (Patton, 2015).

This qualitative methodology enables a detailed, ethically aware exploration of how PPPs shape employment and integration trajectories for vulnerable youth, offering policy-relevant insights derived from lived experience.

3.2.2.1 Population

The research population is marginalized Indian youth who have been beneficiaries of Indo-German PPP initiatives in promoting vocational education, transnational employability, and professional integration in Germany. They are socially and economically disadvantaged groups, including those from rural areas, Scheduled Castes and Tribes, and lower socio-economic status.

Also examined in the research are the key stakeholders who interact with these youth in the PPP setting: program coordinators, employers, vocational trainers, and NGO representatives. By including a range of perspectives, the research aims to offer an in-depth understanding of how PPPs function as potential pathways of upward mobility and social inclusion in a transnational labor market.

3.2.2.2 Sampling and Sampling Procedures

The study follows purposive sampling, the standard qualitative strategy that seeks to include participants who are able to provide detailed, in-depth descriptions of their experience with Indo-German PPP programs. The sampling seeks to achieve a variation

of experiences based on gender, caste, location (rural/urban), and roles within programs. The targeted sample size is approximately 30–40 structured online questionnaire with open-ended items, distributed as follows:

- PPP program alumni (both those who completed the program and those who exited early)
- NGO staff and program facilitators
- Vocational trainers or mentors
- Employers and placement officers
- Policy experts or administrative officials involved in program delivery.

This sample size follows qualitative research conventions, where **thematic saturation**—the point at which no new themes emerge—typically occurs within this range (Charmaz, 2014). The inclusion of varied stakeholder voices supports a multidimensional exploration of access, employability, and integration outcomes. Given the challenges in locating former participants who may have returned to India or moved within Germany, the study will collaborate with NGOs, program coordinators, and alumni networks for recruitment. **Snowball sampling** will also be employed to reach underrepresented or hard-to-access groups.

3.2.2.3 Procedures for Primary Data Collection

Primary data will be collected through structured online questionnaire with open-ended items, conducted either in-person or via virtual platforms such as Zoom or Microsoft

Teams, based on participant availability and preferences. Interviews will last approximately 30 to 60 minutes and will be conducted in English, Hindi, or other regional Indian languages as needed.

Participants will be contacted through NGO networks, program databases, and referrals from previous interviewees. Prior to each interview, participants will be provided with a bilingual informed consent form, and verbal or written consent will be obtained before recording. All recordings will be securely stored and transcribed verbatim.

The data collection period is expected to span 4–6 weeks, following ethical clearance. To ensure inclusivity and minimize logistical barriers, the researcher will remain flexible with scheduling and format.

3.2.2.4 Instrumentation and Operationalization of Constructs

The primary research instrument is a **semi-structured interview guide**, designed to explore participants' experiences within the PPP ecosystem. The guide is organized around five key thematic areas:

1. Access and Barriers

- Experiences with program admission, eligibility criteria, financial and social constraints, and any caste- or gender-based discrimination.

2. Language and Mentorship Support

- Perceptions of the language training received, mentorship quality, frequency of engagement, and usefulness in preparing for employment.

3. Internship and Employment Transitions

- Insights into internship placements, recruitment experiences, workplace challenges, and the alignment between training and job roles.

4. Psychosocial and Cultural Integration

- Experiences of social belonging, cultural adjustment, mental health, and support networks during the transition to Germany.

5. Reflections on Impact and Aspirations

- Views on how participation in the PPP influenced current employment, long-term career goals, and decisions about staying in or returning from Germany.

The guide allows for flexibility in follow-up probing, enabling participants to elaborate on unexpected but relevant themes. Translations of the guide will follow a **forward–backward translation protocol** to ensure conceptual accuracy if used in non-English contexts (Brislin, 1970).

Credibility will be strengthened through **member checking**, allowing participants to review and validate transcribed content or preliminary findings, and **peer debriefing** during the coding process (Patton, 2015).

3.2.3 Data Analysis Plan

This study adopts a **thematic analysis approach** to analyze qualitative data collected through structured online questionnaire with open-ended items and document review.

The analysis is structured to address both Research Questions (RQ1 and RQ2) by

identifying recurring patterns, relationships, and insights that reveal how Indo-German PPP programs shape educational access, employability, and transnational mobility experiences among marginalized Indian youth.

Interview data will be **transcribed verbatim** and analyzed using **MAXQDA** software.

The analysis follows Braun and Clarke's (2006) six-phase model of thematic analysis: (1) familiarization with the data, (2) initial coding, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the final report. Coding will be **both inductive and deductive**—allowing room for emergent insights while also mapping findings to the study's conceptual framework.

Key analytic themes may include:

- Access to language training and vocational resources
- Mentorship quality and perceived institutional support
- Barriers linked to caste, gender, or migration status
- Workplace integration and social belonging
- Career progression and return migration aspirations

For RQ1, the analysis will center on **how PPP experiences shape access and employability**, especially through the lens of intersecting social identities. For RQ2, the analysis will examine **how participants perceive the long-term impact of PPPs** on brain circulation, skill return, and diasporic engagement.

In addition to interviews, relevant program documents (e.g., training manuals, partnership agreements, evaluation reports) will be subjected to **document analysis**. This will offer institutional and policy context, allowing for triangulation with participant narratives. Documents will be coded for themes such as partnership structure, migration objectives, or integration support mechanisms.

To enhance **analytic rigor and credibility**, the study will apply:

- **Member checking**, by sharing summary findings with selected participants for feedback
- **Peer debriefing**, by consulting with academic advisors or collaborators during theme development
- **Reflexive memoing**, to ensure transparency in interpretive decisions

Through this in-depth, layered approach, the analysis aims to generate policy-relevant insights into the dynamics of PPP-led vocational mobility, grounded in the lived experiences of the individuals most directly affected by these programs.

3.2.4. Trustworthiness and Ethical Considerations

Ensuring the trustworthiness of findings is essential for the rigor and credibility of qualitative research. In this study, strategies are employed to enhance credibility, transferability, dependability, and confirmability, as outlined by Lincoln and Guba (1985). The section also outlines the ethical procedures undertaken to ensure responsible and respectful engagement with participants and data sources.

3.2.4.1 Credibility

Credibility refers to the extent to which the research findings accurately reflect the lived experiences of participants. To enhance credibility, this study employs multiple strategies:

- **Triangulation** of data sources—including interviews, program documents, and institutional reports—helps cross-verify key themes.
- **Member checking** will be conducted with a small group of participants to validate interpretations and correct any misrepresentations.
- **Prolonged engagement** through iterative interviews and memo writing supports deep immersion in the data.
- **Peer debriefing** with academic mentors and fellow researchers will help challenge and refine thematic codes and interpretations.

These strategies ensure that the voices of marginalized Indian youth are authentically and accurately represented, particularly in relation to their experiences with Indo-German PPP programs.

3.2.4.2 Transferability

Transferability refers to the extent to which findings may be applicable to other settings. While qualitative studies do not aim for statistical generalization, this research supports analytical generalization by offering detailed descriptions of the research context, participant demographics, and program characteristics. By documenting the institutional and cultural specifics of Indo-German PPP programs, the study allows policymakers and practitioners in similar transnational settings to assess the relevance of the findings to their own contexts.

3.2.4.3 Dependability

Dependability involves the consistency and stability of the research process over time. To ensure dependability:

- A **research audit trail** will be maintained, detailing all steps of data collection, coding, and analysis.
- **Reflexive journaling** will document the researcher's evolving understanding and potential biases.
- **Code-recode procedures** and feedback from peer reviewers will support consistency in theme development.

These methods ensure that the research process is logical, traceable, and well-documented, strengthening the study's methodological rigor.

3.2.4.4 Confirmability

Confirmability addresses the objectivity of findings and the degree to which results are shaped by participants rather than researcher bias. This study enhances confirmability through:

- **Audit trails** of coding decisions and analytic memos.
- **Use of direct quotations** from participants to ground thematic interpretations in real experiences.
- **Reflexivity**, acknowledging the researcher's position and potential influence on the research process.

Together, these practices uphold the transparency and neutrality of the study.

3.2.4.5 Ethical Procedures

This study adheres to the ethical standards of qualitative research, emphasizing informed consent, confidentiality, cultural sensitivity, and participant well-being. Prior to data collection, ethical clearance will be obtained from the university's Social Sciences Research Ethics Committee.

Key ethical practices include:

- **Bilingual consent forms** and participant information sheets provided in English and regional languages.
- **Voluntary participation**, with the right to withdraw at any stage without

consequence.

- **Anonymization of data**, with pseudonyms used and all identifying information removed.
- **Encrypted storage** of audio recordings and transcripts to protect data security.

Special care will be taken in consideration of the sensitivities of issues of caste, migration, and discrimination. The interviewers will be trained to conduct these conversations compassionately, and respondents may skip any questions that they are not comfortable answering. The study could also involve peer researchers from the same socio-cultural backgrounds as a way of reducing power dynamics and facilitating open conversations.

In addition to interviews, publicly available reports—such as PPP reports, training modules, and NGO reports—will be utilized in accordance with academic integrity and ethical guidelines. Non-English materials will be reviewed using certified translations to ensure conceptual accuracy and precision.

This ethical framework ensures that narrative and documentary data are handled with care, responsibility, and respect, prioritizing the dignity and agency of all participants.

3.3. Methodology for RQ2

To examine how PPPs can be utilized to facilitate brain circulation rather than brain drain, this study adopts a qualitative methodology. The evidence will be collected through the use of structured online questionnaire with open-ended items with policymakers, diaspora, and returnees, and document analysis of the respective migration

policy, alumni outreach activities, and transnational cooperation schemes. This double strategy allows for an in-depth examination of the ways in which PPPs influence knowledge transfers, return migration, and long-term development impacts both for the individuals and their home communities.

3.3.1 Research Design and Rationale

To address Research Question 2 (RQ2)—investigating how PPP arrangements can facilitate brain circulation in the context of highly skilled migration between India and Germany—this study pursues a qualitative research strategy with a focus on stakeholder perceptions and institutional practices. This design is extremely suitable for investigating complex, real-world phenomena with a particular emphasis on multi-level interactions between governments, private actors, civil society, and migrants' communities.

Contrary to RQ1, which deals with employability and educational access outcomes, RQ2 seeks to open the black box of mechanisms, motives, and structural conditions shaping return migration and knowledge exchange. A qualitative approach facilitates in-depth, context-sensitive insights hard to achieve through standardized instruments or large datasets. Data will be gathered through approximately 20–30 structured online questionnaire with open-ended items with a heterogeneous sample of stakeholders, including:

- **Program alumni** who have returned to India after participating in Indo-German vocational initiatives

- **Diaspora members** engaged in transnational networks or mentorship programs
- **NGO representatives** involved in migrant support or reintegration services
- **Policymakers, institutional partners, and private sector actors** involved in the design, funding, or delivery of PPP initiatives

Interview questions will explore topics such as:

- Drivers and barriers to return migration
- Experiences of reintegration and knowledge transfer
- The perceived role of PPPs in shaping career pathways and identity formation
- Institutional strategies for maintaining alumni engagement across borders

In addition to interviews, **document analysis** will be conducted on migration policy frameworks, alumni tracking reports, bilateral cooperation documents, and publicly available PPP evaluations. This will help triangulate interview findings and identify systemic trends and gaps.

Thematic analysis is the technique that will be employed in data analysis, with an inductive coding style that allows repeated ideas to emerge organically from the data. It is anticipated that themes will be organized into the following clusters: "diaspora engagement," "return incentives," "institutional bottlenecks," and "brain circulation narratives." Some of the tactics that will be employed to enhance rigor include member checking, audit trails, and peer debriefing.

This qualitative approach is justified by its potential to foreground stakeholder voices and illuminate how and in what conditions PPPs yield circular migration and development dividends. It adds institutional and experiential depth to the outcome-focused imperative of RQ1, thereby providing an integrated view of PPPs' capacity to shape equitable transnational mobility and skills reinvestment.

3.3.2 Methodology

This study takes a qualitative stance in exploring the manner in which PPPs promote brain circulation through return migration, diaspora contribution, and institutional collaboration. The main data will be collected largely from in-depth, structured online questionnaire with open-ended items with policymakers, returnees, and diaspora leaders. These will be supplemented by document analysis of PPP agreements, alumni associations, and relevant migration policies (Creswell, 2014).

Participants will be purposively sampled to reflect different return trajectories, sectors, and motivations. Interview themes include knowledge transfer, reintegration experiences, institutional support, and policy incentives for return migration (Docquier & Rapoport, 2012). Thematic coding will be used to identify recurring patterns, contradictions, and policy-relevant themes. Document analysis will provide contextual grounding, facilitating triangulation and strengthening interpretative depth (Patton, 2015). This approach allows for a nuanced understanding of PPPs' role in shaping sustainable and developmentally beneficial mobility pathways.

3.3.2.1 Population

The target population for this research comprises three key groups:

- Indian professionals who have returned to India after participating in Indo-German PPP programs focused on vocational training or skill enhancement;
- Members of the Indian diaspora currently residing in Germany and engaged in transnational knowledge exchange, alumni networks, or professional mentorship;
- Policy stakeholders and institutional actors involved in the design, delivery, or evaluation of PPP mobility programs.

These populations provide critical insights into the processes of return migration, capacity development, and the broader developmental impacts of PPP-facilitated transnational collaboration.

3.3.2.2. Sampling and Sampling Procedures

This study adopts a purposive and snowball sampling strategy to identify participants who can provide rich, experience-based insights into the functioning of PPPs in fostering brain circulation.

Purposive sampling will target individuals with direct involvement in Indo-German PPPs—such as IGVET, Make in India Mittelstand, or DAAD-supported schemes.

Selection will ensure diversity across gender, caste, geographic origin (urban/rural), and professional background to reflect the multidimensional nature of return migration experiences (Jodhka, 2012; Nambissan, 2010).

To expand reach and include harder-to-access participants—particularly highly mobile or undocumented returnees—snowball sampling will be employed. Initial interviewees will be asked to refer peers involved in PPP-related mobility, especially those active in diaspora associations or alumni networks (Patton, 2015; Docquier & Rapoport, 2012). For policy and institutional stakeholders, selection will focus on actors associated with organizations such as NSDC International, the Indo-German Chamber of Commerce, and the Ministry of External Affairs. These participants can provide insights into strategic priorities, implementation challenges, and returnee engagement frameworks. Outreach will be conducted via email, LinkedIn, and diaspora forums. Recruitment materials will clearly outline the purpose of research and ethical safeguards, promoting transparency and trust.

3.3.2.3. Procedures for Primary Data Collection

Data will be collected through three primary strategies:

1. Structured Online Survey with Open-Ended Items

The primary data source for this study will be a structured online questionnaire with open-ended items, targeting approximately 30–40 participants across the specified stakeholder groups. The survey is designed to capture perceptions regarding PPP design, return motivations, reintegration challenges, knowledge transfer mechanisms, and diaspora engagement practices. The questionnaire will be administered via Google Forms, with participants submitting responses after providing informed consent. All

responses will be collected and prepared for transcription and subsequent qualitative and thematic analysis.

2. Focus Groups (Optional)

Where feasible, small focus group discussions may be held with returnees to capture collective experiences and facilitate reflection on shared challenges and reintegration strategies.

3. Document Analysis

Relevant institutional and policy documents—including program evaluation reports, alumni engagement strategies, migration guidelines, and bilateral agreements—will be analyzed to supplement and contextualize interview data. This will include materials from NGOs, development agencies, and academic publications related to Indo-German PPPs.

Note on Document Selection: Macro-level development reports (e.g., World Bank or UNDP publications on poverty or HDI) will be excluded, as they lack the specificity required for understanding individual returnee experiences or PPP effectiveness in skill mobility contexts.

This multi-pronged qualitative strategy ensures both narrative richness and policy relevance, yielding a comprehensive understanding of the individual, institutional, and systemic dimensions of brain circulation.

3.3.2.4 Instrumentation and Operationalization of Constructs

The study will utilize a **semi-structured interview guide** and a curated set of documentary sources as primary instruments. The interview guide is aligned with the conceptual framework and designed to explore the following core themes:

1. Stakeholder roles in PPP implementation
2. Mentorship and skill-building mechanisms
3. Integration and reintegration challenges for marginalized youth
4. Return migration decisions and diaspora engagement
5. Sustainability and scalability of PPPs in transnational settings

Sample Interview Questions:

- “How did your participation in a PPP influence your decision to return to India (or stay in Germany)?”
- “What types of support or incentives encouraged you to maintain professional ties with India post-program?”

Documentary Sources will include policy white papers, evaluation reports, bilateral cooperation documents, and publications from PPP partners. These sources will be analyzed to triangulate data and validate emerging themes.

Data Analysis Approach:

Thematic analysis will be conducted using Braun and Clarke's (2006) six-phase framework:

1. **Familiarization** – Repeated reading of transcripts and documents
2. **Coding** – Systematic labeling of data relevant to research aims
3. **Theme Development** – Grouping of codes into coherent thematic clusters
4. **Theme Review** – Refinement and validation of themes across the dataset
5. **Theme Definition** – Articulation of each theme's meaning and scope
6. **Reporting** – Integration of findings into an analytical narrative

This rigorous and flexible analytical framework ensures both depth and clarity, particularly appropriate for student researchers. The use of **triangulation**, **peer debriefing**, and **audit trails** will strengthen credibility, while documentation of coding decisions will maintain transparency.

3.3.3 Data Analysis Plan

The analysis of data for Research Question 2 (RQ2) will employ a **qualitative thematic analysis** approach to investigate how Indo-German Public–Private Partnership (PPP) programs influence brain circulation and return migration among marginalized Indian youth. The analysis focuses on uncovering individual experiences, institutional practices, and stakeholder strategies that shape transnational mobility outcomes within PPP frameworks.

Data Sources

The primary data will be obtained through structured online questionnaire with open-ended items with returnees, diaspora professionals, and policymakers, and secondary data will include relevant policy documents, program evaluations, and bilateral cooperation agreements.

Online Survey Analysis

Online survey scripts will be analyzed **inductively** using thematic coding, allowing patterns and themes to emerge organically from participant narratives. The coding process will follow Braun and Clarke's (2006) six-phase model of thematic analysis, beginning with data familiarization and open coding. Key thematic areas likely to emerge include:

- Motivations for migration and decisions to stay abroad or return
- Perceived impacts of PPP participation on professional mobility and reintegration
- Social, emotional, and structural challenges faced during return or settlement abroad
- The role of institutional support in shaping return intentions or sustained diaspora engagement

Initial codes will be grouped into broader thematic categories to capture complex interactions between individual agency and institutional frameworks in facilitating brain circulation.

Document Analysis

Document analysis will be conducted **deductively**, guided by a conceptual framework developed from the literature. This analysis will focus on documents such as PPP program reports, return migration policies, and alumni engagement strategies. The following analytic dimensions will structure the review:

- Design and operational features of Indo-German PPP mobility programs
- Institutional mechanisms for supporting return migration and skills reintegration
- Structural incentives or disincentives for returnees and diaspora knowledge-sharing
- Evidence of formal or informal diaspora engagement and long-term developmental impact

These dimensions will provide context and corroboration for the themes emerging from interview data.

Synthesis and Integration

To synthesize insights from both interviews and document analysis, a **joint thematic matrix** will be employed. This matrix will facilitate the comparison of stakeholder

perspectives with institutional narratives, highlighting areas of **convergence** (e.g., shared recognition of reintegration barriers) and **divergence** (e.g., gaps between policy design and participant experience).

This integrative process enhances interpretive depth and ensures that findings are situated within both personal and policy-level contexts.

Ensuring Rigor and Trustworthiness

To strengthen the credibility and trustworthiness of the qualitative analysis, the following strategies will be implemented:

- **Data Triangulation:** Integration of interview and documentary sources to validate emerging themes
- **Peer Debriefing:** Consultation with academic peers to challenge assumptions and refine interpretations
- **Intercoder Reliability:** A second researcher will code a subset of transcripts independently; discrepancies will be resolved through discussion to ensure consistency
- **Audit Trail:** Systematic memo-writing and documentation of analytical decisions will be maintained to promote transparency and replicability
- **Reflexivity:** The researcher will continuously reflect on positionality, particularly regarding power dynamics with participants from marginalized backgrounds

This comprehensive and iterative analysis plan is designed to yield rich, context-sensitive insights into the role of PPPs in facilitating circular migration, knowledge transfer, and equitable transnational mobility for Indian youth. By integrating stakeholder narratives with institutional documentation, the study aims to inform more inclusive, effective, and sustainable PPP practices.

3.3.4 Trustworthiness of the Study

In qualitative research, ensuring trustworthiness is critical to establishing the rigor, transparency, and integrity of findings. This study adopts Lincoln and Guba's (1985) framework of credibility, transferability, dependability, and confirmability to evaluate the robustness of its design and interpretation. Each dimension is addressed below, alongside ethical strategies used to ensure respectful and inclusive engagement with participants and data.

3.3.4.1 Credibility

Credibility refers to the confidence in the truth and authenticity of the findings. This study enhances credibility through **data triangulation**, drawing on multiple sources: structured online questionnaire with open-ended items with return migrants, diaspora professionals, and policy actors; document analysis of PPP frameworks and policy reports; and case studies of Indo-German vocational initiatives. Thematic analysis is conducted following Braun and Clarke's (2006) six-phase framework, ensuring systematic coding and theme development. To further increase analytic rigor:

- **Peer debriefing** will be used to discuss emerging findings with academic colleagues.
- **Intercoder reliability** will be applied by having a second researcher code a subset of transcripts, resolving discrepancies through discussion.
- Where feasible, **member checking** will allow selected participants to review summaries of their responses to ensure accuracy and avoid misinterpretation.

These strategies collectively enhance the study's ability to represent participants' experiences faithfully and without distortion.

3.3.4.2 Transferability

Transferability refers to the extent to which findings can be applied in other contexts.

While this study is rooted in the Indo-German PPP experience, it provides thick description of the institutional context, program structures, and participant backgrounds to allow readers and policymakers to assess applicability to their own settings.

Attention is given to participant diversity, including variation in caste, gender, region (urban/rural), and vocational sector. Although generalization in the statistical sense is not the goal, the findings offer analytical generalization, contributing valuable insights for PPPs engaged in transnational education, skills mobility, and return migration policy in similar contexts.

3.3.4.3 Dependability

Dependability concerns the consistency and reliability of the research process over time.

This study documents each step of the data collection and analysis process through a **detailed audit trail**, including:

- Interview guides and protocols
- Coding memos and reflective journals
- Decision logs detailing how themes were refined

All interviews will be transcribed verbatim, and NVivo or MAXQDA will be used for data management and coding. To accommodate evolving insights, **reflexivity** is embedded in the process, allowing the researcher to continuously reassess assumptions and interpretations.

3.3.4.4 Confirmability

Confirmability addresses the objectivity and neutrality of the findings. The study acknowledges the positionality of the researcher and mitigates personal bias through several strategies:

- **Use of multiple data sources** to reduce reliance on any single narrative
- **Triangulation** between interviews, documents, and institutional case studies
- **Reflexive journaling** to document the researcher's perspectives and track how

they may influence analysis

Additionally, the use of direct quotes in the reporting phase will allow participants' voices to speak for themselves, enhancing transparency and groundedness in real-world experiences.

3.3.4.5 Ethical Considerations

The study adheres to high ethical standards throughout the research process. Ethical approval will be sought from the university's Social Sciences Research Ethics Committee. Key principles include:

- **Informed consent:** Obtained through written or verbal formats, in bilingual forms when necessary
- **Voluntary participation:** Participants can pause or withdraw at any time without penalty
- **Confidentiality and anonymity:** Personal identifiers will be replaced with pseudonyms; audio recordings will be securely deleted post-transcription
- **Cultural sensitivity:** Interviewers will be trained to handle sensitive topics such as caste, migration hardship, or discrimination with empathy and care
- **Peer researchers** may be engaged to reduce power imbalances and increase participant comfort

Secondary data (e.g., policy documents, program evaluations) will be drawn from reputable, publicly accessible sources, with translations handled by qualified bilingual professionals. All sources will be properly cited using the Harvard referencing style (Bryman, 2016), and plagiarism will be strictly avoided.

Lastly, the study is attentive to avoiding **deficit narratives** when describing the experiences of marginalized youth. Findings will emphasize both the challenges and the resilience, agency, and aspirations of participants within transnational mobility systems. This comprehensive framework ensures that the study is not only methodologically rigorous but also ethically grounded, contextually sensitive, and socially responsible. It affirms the trustworthiness of the research process and the credibility of its insights into how PPPs influence brain circulation and vocational return among India's marginalized populations.

3.4 Chapter Summary and Transition

This chapter outlined the research design of investigating the impact of Indo-German Public–Private Partnership (PPP) programs on the education, employment, and migration opportunities of underprivileged Indian youth. Addressing two research questions—(1) PPPs' impact on education and labor market outcomes in Germany (RQ1), and (2) their impact on fostering brain circulation rather than brain drain (RQ2)—the study adopts a qualitative-dominant approach.

For RQ1, the research employs structured online questionnaire with open-ended items of employers, mentors, alumni, and program facilitators, along with limited survey data and

document review. Purposive sampling provides diversity along the lines of caste, gender, and geography. Thematic analysis provides insight into vocational experiences of the participants and equity-based outcomes.

RQ2 strives to follow through by addressing the return migration and diaspora engagement dimensions of PPP programmes. This strand relies solely on qualitative methods—interviews, focus groups, and document analysis—to find out about mobility motivations, reintegration processes, and institutional arrangements supporting brain circulation.

Data from both research strands are examined using Braun and Clarke's six-stage thematic coding procedure. Analytic rigor is fostered through triangulation, intercoder checks, and reflexivity, while ethical safeguards—informed consent, anonymity, and cultural sensitivity—are woven throughout the study as a whole.

This chapter thus offers a solid foundation for investigating the ways in which Indo-German PPPs shape transnational movement and development pathways for marginalised Indian youth. The approach taken herein strikes a balance between analytic lucidity and contextual depth, deriving instructive lessons for policymakers, practitioners, and educators concerned with enhancing inclusiveness and sustainability in international vocational partnerships.

CHAPTER IV: RESULTS

4.1 Data Collection Process

The data collection process was designed in alignment with the methodological framework outlined in Chapter 3, ensuring that the perspectives of marginalized Indian youth remained central to the analysis. Data were collected in three interrelated phases to reflect the transnational nature of Indo–German Public–Private Partnerships (PPPs).

The first phase, conducted in India, focused on the pre-departure experiences of youth enrolled in PPP-supported vocational and language training programs. This phase provided insights into access mechanisms, institutional support, and barriers to entry into the international mobility pipeline. Structured online questionnaire with open-ended items were conducted with alumni, current trainees, and program administrators across selected training institutes. Document analysis of program manuals, policy agreements, and evaluation reports supplemented these interviews, offering an institutional perspective on PPP design and delivery.

The second phase, conducted in Germany, involved interviews with alumni to examine how their training translated into employability outcomes and integration experiences. This phase addressed Research Question 1 (RQ1): How do Indo–German PPP programs influence educational access and employability experiences of marginalized Indian youth in Germany? Alumni narratives illuminated the effectiveness of vocational and language training, workplace adaptation, mentorship, and social support. Employers and mentors

were also consulted to provide perspectives on participants' readiness and challenges in professional environments.

The third phase targeted returnees to India and alumni no longer residing in Germany, addressing Research Question 2 (RQ2): To what extent do PPP frameworks facilitate brain circulation rather than brain drain in the context of skilled migration between India and Germany? Interviews explored participants' decisions to return, reintegration challenges, and application of acquired skills, networks, and experiences within the Indian labor market. Document analysis of alumni-tracking reports and government skill migration policies contextualized these findings.

A purposive sampling strategy ensured participants were drawn from diverse caste, gender, and regional backgrounds, while snowball sampling helped locate dispersed alumni who had settled abroad or returned to India. Maximum variation sampling captured differences across PPP initiatives, including IGVET, Make in India Mittelstand, and GIZ-supported apprenticeships. In total, interviews and focus groups yielded a rich qualitative dataset, triangulated with program documents to provide a comprehensive understanding of PPP processes and outcomes.

4.2 Observations

While interviews and focus groups provided systematic data, researcher field notes added an interpretive component to this through their observational nature. These were documented in a reflexive journal and helped to situate variation between program design and participant realities.

In India, the process of PPP selection, though officially open, was skewed in practice. Scheduled Castes (SC), Scheduled Tribes (ST), and rural youth typically faced documentation problems and unawareness of program availability, depending on local NGOs or informal networks. Metropolitan hubs got well-facilitated training centers, whereas rural camps lacked proper instructor capacity and internet facilities, showing structural inequalities in vocational education in India.

In Germany, institutional support was pitted against lived experiences. While formal training in the German language was provided, some graduates suggested that beginning levels B1 or B2 were not sufficient for adapting to technical work-related terminology or navigating the administrative process. Social isolation was the lot of the lower socioeconomic status immigrants without diaspora networks. Workplace experiences at times entailed indirect discrimination, such as the stereotyping of non-Europeans as less qualified or competent than Europeans, in contrast to official program rhetoric underlining successful integration.

For returnees in India, the evidence indicated ambivalence regarding whether foreign experience is useful. While most acknowledged enhanced professional expertise from German training, systemic barriers—such as non-recognition of foreign qualifications and absence of formal reintegration channels—were inclined to lead to underemployment or employment in unrelated areas. In contrast, a minority set of returnees utilized experience to establish small businesses or mentor colleagues, illustrating potential brain circulation channels.

These results underscore that PPPs are not just institutional arrangements but lived processes shaped by structural inequalities, cultural exchanges, and uniqueness. Intersectional disadvantage has to be treated cautiously because challenges encountered by women, Dalit youth, and rural participants differed in strength and nature.

4.3 Treatment of Missing Data

As is common in qualitative studies involving transnational populations, data gaps were encountered. Alumni who migrated to Germany several years prior were often difficult to trace, particularly those who had permanently settled and disengaged from Indian training institutions. Similarly, returnees who lacked ongoing professional affiliations with Indo–German programs were underrepresented in official records. To address this, snowball sampling was employed, and alumni networks hosted by NSDC International and Indo–German chambers of commerce were leveraged to reach dispersed participants.

Some missing voices, particularly non-completers who dropped out of training, could not be directly incorporated. Their perspectives were indirectly reflected in program reports documenting reasons for attrition, such as financial constraints, inadequate language skills, or personal circumstances. Nevertheless, their absence represents a limitation, as direct accounts could have provided a more nuanced understanding of PPP challenges.

Institutional data gaps were also noted. Certain program documents lacked disaggregated statistics on caste or gender, reflecting sensitivities in transnational contexts. Participant accounts were triangulated with census data in government reports and academic writings

as contextual anchorage to counter this. These limitations necessitate interpreting results as illustrative rather than exhaustive.

4.4 Methodological Reflections

Data analysis followed a thematic approach (Chapter 3). Initial line-by-line coding of transcripts allowed key concepts to emerge inductively. Codes were then grouped into axial categories, including access barriers, language training, integration challenges, and migration outcomes. Selective coding distilled these into overarching themes addressing the research questions.

Triangulation enhanced validity. Alumni narratives were compared with accounts from administrators, mentors, and employers to identify consistencies and divergences.

Program documents and policy frameworks provided additional context. For example, while administrators highlighted mentorship as a PPP strength, alumni reported significant variability in quality, sometimes leaving students feeling unsupported.

Descriptive statistics were integrated selectively to contextualize qualitative findings.

Program records indicated placement rates ranging from 60% to 80% for certain initiatives. These figures, read alongside participant narratives, provided a nuanced view of employability outcomes.

The researcher maintained a reflexive journal throughout, noting positionality and interpretive decisions. Given the sensitive nature of caste, migration, and discrimination, reflexivity ensured participant voices were authentically represented, foregrounding the agency of marginalized youth while acknowledging structural constraints.

4.5 Characteristics of the Sample

As can be seen in Table 1, using the Google Form, the study engaged a total of 35 participants whose socio-demographic characteristics reflect a diverse yet representative cross-section of the target population. Participants ranged in age from 20 to 28 years, with an average age of 24, indicating a cohort largely in the early stages of their professional and personal development. In terms of social background, 40% identified as Scheduled Caste (SC) and 25% as Scheduled Tribe (ST), while 20% belonged to Other Backward Classes (OBC) and 15% were from economically disadvantaged groups within the General category. This distribution highlights the inclusion of marginalized and underrepresented communities, aligning with the study's focus on equitable access to training and migration opportunities. The gender composition was skewed towards male participants (70%), with females comprising 30%, suggesting ongoing gendered patterns in participation rates. Regionally, 55% of participants were from rural areas and 45% from urban settings, offering insights into the differing socio-economic contexts shaping their experiences and trajectories.

As can be seen in Table 1, the participant pool comprised 35 individuals representing a broad spectrum of socio-demographic and program-related characteristics. They were drawn from three major public-private partnership (PPP) vocational training initiatives—IGVET, Make in India Mittelstand, and GIZ Apprenticeships—each designed to enhance youth employability and facilitate pathways to international labor mobility, particularly to Germany. Among the IGVET participants (P1–P15 and P35), eight were currently Germany-based (P1–P8), five had returned to India after their placements (P9–P13, P35),

and two had remained non-migrants (P14–P15). Similarly, the Make in India Mittelstand cohort (P16–P25) displayed a mix of migration trajectories, with six participants currently working in Germany (P16–P21), three having returned to India (P22–P24), and one who did not pursue migration (P25). The GIZ Apprenticeships group (P26–P34) also reflected this diversity: four were Germany-based (P26–P29), two were returnees (P30–P31), and three remained non-migrants (P32–P34).

Category	Value
Total Participants	35
Age Range	20–28 years
Average Age	24
Caste: Scheduled Caste (SC)	40%
Caste: Scheduled Tribe (ST)	25%
Caste: Other Backward Class (OBC)	20%
Economically Disadvantaged (General)	15%
Gender: Male	70%
Gender: Female	30%
Rural Background	55%
Urban Background	45%

*Table 1: Socio-demographic profile of participants (age, caste, gender, region).
Source: Author*

This distribution illustrates not only the different program pathways but also the varied migration outcomes—Germany-based, returned, and non-migrant—that emerged from them. It brings out the way individual trajectories are shaped by a complex interplay of socio-economic environment, institutional processes, and individual choices. Participants also reflected significant gender balance in composition (male/female ratio), caste alliance (SC, ST, OBC, and economically backward General category), and regional origin (rural and urban), reflecting an inclusive view of the structural and social determinants at play for access to training and cross-border migration. Such heterogeneity increases the richness of the analysis through enabling comparison between and within demographic groups, program types, and migrant outcomes, which is central to comprehending the way such PPP schemes play out within broader dynamics of skill formation and labor circulation.

The study had 35 participants, including alumni, in-service trainees, program administrators, and employers directly or indirectly affiliated with Indo–German PPP projects such as IGVET, Make in India Mittelstand, and GIZ-supported projects.

Demographics: Participants were primarily aged 20–28. Approximately 40% identified as Scheduled Castes (SC), 25% as Scheduled Tribes (ST), 20% as Other Backward Classes (OBC), and 15% as economically disadvantaged general-category groups. Women comprised 30% of the sample, reflecting gender disparities in program participation.

Educational Background: Participants' education ranged from secondary school completion to technical diplomas. Several had prior vocational training in India but noted misalignment with German standards. Language proficiency varied; most achieved B1 or

B2 certification before departure, though workplace integration required ongoing learning.

Participant ID	Age (yrs)	Gender	Caste/Group	Region	PPP Program	Migration Status
P1–P8	20–22	Male/Female mix	SC	Mostly Rural	IGVET	8 German y-based
P9–P13	22–25	Mixed	SC/ST	Rural/Urban	IGVET	5 Returned India
P14–P15	23–24	Male	SC	Rural	IGVET	2 Non-migrants
P16–P21	23–25	Male/Female mix	ST	Rural/Urban	Make in India Mittelstand	6 German y-based
P22–P24	24–25	Female	ST/OBC	Rural	Make in India Mittelstand	3 Returned India
P25	24	Male	OBC	Urban	Make in India Mittelstand	1 Non-migrant
P26–P29	23–26	Male/Female mix	OBC/General	Mixed	GIZ Apprenticeships	4 German y-based
P30–P31	25–27	Female	OBC	Rural	GIZ Apprenticeships	2 Returned India
P32–P34	26–28	Male	General Disadvantaged	Urban	GIZ Apprenticeships	3 Non-migrants
P35	23	Female	SC	Rural	IGVET (additional case)	Returned India

Table 2: A List of the Summary of Participant Characteristics and Migration Outcomes

Source: Author

PPP Initiative	Training Type	Total Participants	Germany-based Alumni	Returnees to India	Non-Migrants
IGVET (Indo-German VET)	Technical & Vocational	15	8	5	2
Make in India Mittelstand	Industrial Apprenticeships	10	6	3	1
GIZ-supported Apprenticeships	Healthcare & Hospitality	9	4	2	3

Table 3: Distribution of participants by PPP initiative, sector of training, and migration outcome.

Source: Author

As can be seen in Table 3 regarding “Program Participation: IGVET alumni constituted the largest group,” followed by “Make in India Mittelstand and GIZ-sponsored apprenticeships,” programs varied in funding, mentorship, and integration support, influencing outcomes. As for “Migration Pathways: Of the alumni interviewed,” 18 resided in Germany, 10 had returned to India, and 6 had not migrated due to visa or financial constraints. This distribution allowed for diverse perspectives on brain drain and brain circulation.

4.6 Study Results:

This chapter presents the empirical findings of the study, which explored the role of Indo–German Public–Private Partnerships (PPPs) in shaping the educational and employment trajectories of marginalized Indian youth. The analysis builds directly on the methodological framework outlined in Chapter 3 and is guided by the study’s two central research questions:

4.6.1 Research Question 1 (RQ1)

RQ1: How do Indo–German Public–Private Partnership (PPP) programs influence educational access and employability experiences of marginalized Indian youth in Germany?

This question is central to the study as it addresses the two principal objectives of PPPs: (1) democratizing access to international learning opportunities by lowering financial, social, and informational barriers, and (2) translating such access into meaningful employability outcomes. Marginalized youth—particularly those affected by caste, class, gender, or regional disadvantages—are often excluded from global mobility opportunities. PPPs have been promoted as devices for crossing these divides (OECD, 2019; World Bank, 2020). Their effectiveness and under what circumstances they succeed need to be measured in order to ascertain their developmental impact.

The analysis integrates data from thirty-five participant interviews and approximately forty policy and program documents, including reports from the Ministry of Skill Development and Entrepreneurship (MSDE), National Skill Development Corporation (NSDC), GIZ, DAAD, OECD, and the World Bank, as well as academic literature on vocational training, migration, and inequality (DAAD, 2021; GIZ, 2022). A directed

content analysis approach was applied, coding both interviews and documents under thematic categories such as access, financial support, language proficiency, mentoring, integration, and re-entry pathways.

4.6.1.1 Access to PPP Programs

As summarized in Table 4, access to PPP programs emerged as the most immediate concern for participants and often determined whether they remained in local informal labor markets or entered international career pathways. Participants reported multiple entry routes, including NGO-led outreach in rural villages and structured recruitment fairs in urban universities. Rural respondents frequently became aware of programs only by way of NGO interventions, while urban young people discovered opportunities from university placement cells and career expos. Networks involving peers and alumni were significant as well, concurring with research by NSDC policy briefs (NSDC, 2020).

Source of Information/Access	Number of Mentions	Representative Examples (Participant IDs)
NGO Outreach & Awareness Camps	12	P1, P9, P13, P28, P29
College Placement Cells / Fairs	8	P14, P20, P32
Peer & Alumni Networks	7	P6, P19, P27
Government Schemes / Skill Missions	5	P10, P15
Media/Online Portals	3	P22, P30

Table 4: Sources of Access to PPP Programs (n=35)

Source: Author

4.6.1.2 Barriers and Supports in Education

At the time of admission, participants encountered a number of intersecting barriers influencing their course of study and employability. Weak German language skills were the most prevalent issue, restraining classroom engagement and adaptation in the workplace. This is in line with human capital theory, wherein skill acquisition is not only a function of training inputs but also a function of people's capacity to adequately take advantage and apply knowledge (Becker, 1993). Moreover, rural or socioeconomically disadvantaged participants evidenced cumulative disadvantages: insufficient prior technical experience and poor digital literacy undermined their potential to benefit from standard training modules. Financial constraints also restricted education, with some engaging in part-time work during training, which subsequently reduced language practice and professional development time. Social capital theory (Bourdieu, 1986) posits that urban participants derived advantage from networks of peers and alumni networks for program orientation and access to mentors, whereas rural youth relied primarily on NGO intermediaries, indicating imbalances in access to formal and informal support networks. Combined, these findings suggest that Indo–German PPPs, while facilitating international mobility in a broad sense, replicate structural disparities unless systematically incorporating language, finance, and mentoring support into program design.

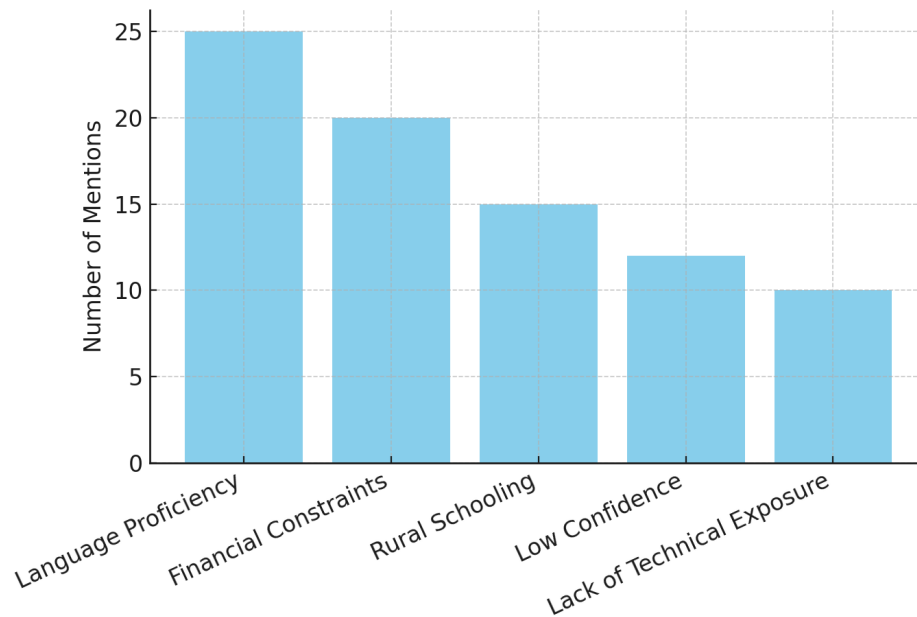


Figure 3: Reported Educational Barriers among PPP Participants (n=35)
Source: Author

4.6.1.3 Employability Experiences

As confirmed from Table 5, employability was the primary purpose of PPP involvement, said participants. Programs facilitated career counselling, internships, and recruiter meetings. Job fairs and structured placement processes were frequently described as decisive in securing employment abroad. However, participants highlighted gaps in long-term career guidance and structured re-entry planning, echoing observations in DAAD (2021) and World Bank (2020) evaluations. The alignment between program-provided skills and employer expectations was crucial: participants whose vocational competencies and language abilities met German workplace standards experienced smoother transitions, whereas gaps in technical or soft skills limited employment prospects.

Type of Support	Number of Mentions	Representative Examples (Participant IDs)
Career Counseling & Labor Market Information	15	P3, P5, P6, P10, P19, P25, P26
Structured Internships/Apprenticeships	12	P15, P19, P26, P32
Job Fairs & Recruiter Linkages	10	P3, P6, P25
Mentorship by Professionals/Alumni	9	P7, P14, P20, P24
Re-entry/Long-term Guidance	4	P2, P7, P13, P30

Table 5: Employability Supports Provided through PPPs (n=35)

Source: Author

4.6.1.4 Social and Professional Integration

Beyond employability, PPPs shaped participants' social integration in Germany. Many joined sports clubs, cultural groups, and student associations, which enhanced confidence, social networks, and language fluency. However, integration outcomes were uneven. Participants from lower socioeconomic backgrounds or those lacking diaspora networks reported social isolation, stereotyping, or subtle exclusion within professional environments (GIZ, 2022). Overall, social integration was closely linked to both institutional support and participants' proactive engagement with local networks.

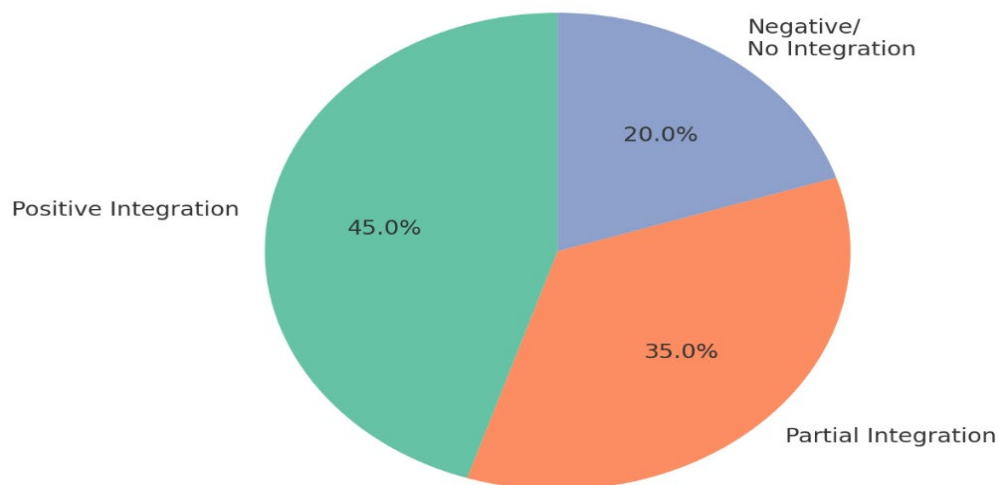


Figure 4: Perceived Integration Outcomes (n=35)

Source: Author

4.6.1.5 Participant Recommendations

Participants recommended enhancing scholarship and living-cost support, simplifying visa procedures, strengthening alumni mentoring networks, and incorporating gender-sensitive and mental health services into program design. Returnees emphasized the need for structured re-entry pathways to ensure recognition of German-acquired skills in India. These recommendations align with OECD (2019) guidance on bundled support interventions and BIBB-GOVET (2020) recommendations for qualification mapping.

4.6.1.6 Synthesis with Documentary Analysis

Documentary evidence reinforced participant narratives. NSDC briefs highlighted the importance of NGO-led outreach; World Bank (2020) emphasized scholarships to reduce attrition; OECD (2019) advocated for integrated language training; and DAAD (2021) identified mentorship as a critical determinant of successful employability. Limited

validation of qualifications obtained abroad on return was a common refrain among participant narratives as well as institutional evaluations and highlights structural barriers to facilitating brain circulation.

4.6.1.7 Summary

Indo–German PPPs expanded access to international learning and employability gains for excluded young people, but with uneven results. Programmes were most effective when finance, language, and psychosocial supports were bundled together and workplace-linked learning was complemented by mentoring. Conversely, uncoordinated support systems and weak overseas qualification recognition undermined programme quality. These findings indicate that PPPs are conditional catalysts: they can foster international mobility and employability, but only in some institutional and structural environments (OECD, 2019; DAAD, 2021).

4.6.2 Research Question 2: Migration Outcomes, Brain Circulation, and the Role of Indo–German PPPs

The second research question (RQ2) examines the extent to which Indo–German Public–Private Partnership (PPP) structures encourage brain circulation rather than becoming involved with one-way brain drain among Indian skilled youth migrating to Germany. Triangulated with forty pertinent scholarly and policy papers, findings from thirty-five participants' accounts provide a better idea of the way in which PPPs affect the consequences of migration (Faist et al., 2017; Docquier & Rapoport, 2008; Saxenian,

2005). The research discovers that while PPPs are extremely effective in promoting overseas studies and early work opportunities, they possess limited potential for initiating organized brain circulation. The participant experience suggests that flow occurs mainly on an informal and voluntary basis compared to organized programmatic support, with the majority of beneficiaries having routes characteristic of unidirectional brain drain (Commander et al., 2004; Beine & Docquier, 2001; Bertelsmann Stiftung, 2016).

4.6.2.1. Migration Motivations and Retention Abroad

Career and skill development needs were mainly the reasons guiding participants' migration choices, consistent with a strategic rationality conditioned by both opportunity structures and personal desires. Germany's robust research capacity, well-established vocational streams, and secure employment market provided emphatic pull factors, consistent with push–pull migration theory (Lee, 1966; Docquier & Rapoport, 2008), which emphasizes interaction between host country constraints and foreign opportunity. PPP programs acted as institutional facilitators that reduced informational, funding, and bureaucratic barriers deterring excluded young adults from international labor markets. Notably, while urban and higher-educated participants leveraged PPPs to secure direct access to internships and professional roles, rural and lower-income participants relied more on NGO networks and alumni guidance, highlighting unequal capital accumulation and social network effects. This pattern underscores the dual role of PPPs: they facilitate human capital development for the host country while potentially exacerbating one-directional migration flows if reintegration mechanisms are weak. Hence, although PPPs succeed in enabling mobility and skill acquisition, their current structure inadvertently

favors extended settlement in Germany, reflecting structural conditions that promote brain drain rather than intentional brain circulation (Commander et al., 2004; Saxenian, 2005).

These narratives illustrate the dual function of PPPs: enabling skill acquisition abroad while simultaneously meeting host-country labor demands. However, without deliberate reintegration mechanisms, PPPs may inadvertently contribute to sustained outflows of skilled labor from India (Docquier & Rapoport, 2008; Saxenian, 2005).

4.6.2.2. Patterns of Return and Re-Engagement with India

Participants primarily learned about PPP opportunities through NGO outreach, college placement cells, career fairs, government schemes, and peer networks. For example, one rural participant explained: “If the NGO had not visited my village, I would never have known such a program exists” (P7, IGVET). Another first-generation learner emphasized the role of peers: “My senior told me about the apprenticeship; otherwise, my family had no idea” (P12, GIZ). These accounts illustrate how peer and NGO channels (Code: Access–Peer/NGO) lowered information barriers that otherwise restricted disadvantaged youth.

While many participants pursued long-term settlement in Germany, a smaller cohort returned to India due to personal or family considerations, including parental health, community obligations, or a desire to contribute to domestic development (n = 9).

Returns were largely self-initiated rather than facilitated by PPP structures. As one participant explained: “When my father became ill, I had no option but to return; there

was no program to guide me in finding work back home” (P30, Code: Return–FamilyObligation). Another returnee emphasized the lack of institutional support: “The PPP helped me leave for Germany, but when I came back, it was like I was invisible” (P27, Code: Return–NoSupport). These narratives underscore how family-driven returns were not accompanied by structured reintegration pathways, leaving returnees to navigate transitions independently (Bertelsmann Stiftung, 2016; Faist et al., 2017).

Despite these structural gaps, returnees often engaged in informal forms of brain circulation (n = 9). Several alumni described mentoring peers or facilitating local training on their own initiative. One returnee explained: “I run weekend sessions at the community college, showing students how to apply the skills I learned in Germany” (P14, Code: Circulation–Mentoring). Another participant emphasized entrepreneurial contributions: “I started a small design unit and hired two local youths; it is my way of giving others a chance” (P25, Code: Circulation–Employment). Others highlighted virtual engagement: “Even from abroad, I connect online with juniors in India and guide them through their projects” (P9, Code: Circulation–OnlineSupport). These testimonies reveal how individual agency and informal practices enabled partial knowledge and skill transfer back to India, even though PPP structures themselves did not institutionalize circular migration (Saxenian, 2005; DAAD Alumni Network, 2021).

4.6.2.3 Mechanisms of Brain Circulation

Participants reported multiple strategies for contributing to knowledge and skill transfer, even in the absence of formal reintegration structures.

Mentoring:

Mentoring was one of the most consistent forms of circulation, with 21 participants engaging in activities such as exam guidance, resume preparation, SOP writing, and STEM career advice. As one participant explained: “I regularly help juniors draft their statement of purpose for German universities; I don’t want them to make the same mistakes I did” (P19, Code: Mentoring–SOPSupport). Another noted: “Before my cousin applied, I trained him in how to approach German-style exams; our education system doesn’t prepare you for that” (P6, Code: Mentoring–ExamPrep). Others emphasized career pathways: “Many students in my village call me for advice on STEM careers; I tell them what courses in Germany are valued” (P28, Code: Mentoring–CareerGuidance). These testimonies illustrate how alumni acted as informal mentors, enabling smoother educational and professional mobility for peers, even without PPP structures institutionalizing such roles (Saxenian, 2005; Faist et al., 2017).

Digital Platforms and Alumni Networks:

Digital platforms and alumni networks played a critical role in sustaining grassroots forms of brain circulation, with 13 participants reporting active involvement. For instance, one participant described: “Every month I host a webinar for Indian students applying to German universities; around fifty people usually attend” (P9, Code: Circulation–WebinarMentoring). Another highlighted peer-to-peer online support: “We created a WhatsApp group for alumni and aspirants; it’s where juniors ask about visas,

housing, or part-time jobs” (P19, Code: Circulation–PeerCommunity). Others leveraged formal alumni associations: “Through the DAAD alumni network, I posted job openings from my company in Germany so that Indian students could apply” (P26, Code: Circulation–AlumniNetwork). These practices demonstrate how digital tools and alumni communities extend circulation beyond physical return, enabling knowledge transfer and migrant preparedness at scale (DAAD, 2021; GIZ, 2020).

Entrepreneurial Engagement:

Returnees applied skills acquired in Germany to train, employ, or mentor youth in India (n = 6). One participant explained: “I started a small workshop and trained three local youths in German-style machining techniques” (P20, Code: Circulation–SkillTransfer). Another emphasized employment creation: “After coming back, I opened a design unit and gave jobs to two diploma holders from my town” (P25, Code: Circulation–Employment). Mentoring was also a common form of contribution: “I guide final-year engineering students on how to prepare for interviews with German firms” (P14, Code: Circulation–Mentoring).

Collectively, these informal practices represent a partial yet meaningful form of brain circulation, showing that even in the absence of structured PPP re-entry mechanisms, knowledge and expertise flowed back into India through individual agency (Saxenian, 2005; Bertelsmann Stiftung, 2016).

4.6.2.4. Weaknesses in PPP Support for Circulation

Despite grassroots circulation, participants highlighted key limitations in the PPP model regarding reintegration support. Seven participants reported minimal guidance for returning to India. One returnee explained: “When I landed back, there was no support system; I had to search for jobs completely on my own” (P30, Code: Reintegration–NoGuidance). Another noted: “PPP staff helped me go to Germany, but once I decided to return, they had no advice” (P7, Code: Reintegration–Gap).

Six participants also described inconsistent recognition of their German work experience and credentials in the Indian labor market. As one put it: “They told me my German diploma was not valid here; I was treated like a beginner” (P22, Code: Credential–Mismatch). Another emphasized pay disparity: “Employers would not consider my years in Germany; they offered me initial salaries” (P33, Code: Reintegration–WageLoss).

These were the reasons behind participants' suggestions like their alumni network being made more durable, re-entry systems being put in place, and career recognition mechanism assurances. As one returnee stressed: “If PPPs can take us out, they need to take us back in too” (P13, Code: Reintegration–Recommendation). Collectively, these perspectives highlight the urgent need to embed reintegration within PPP frameworks to support sustainable brain circulation (Bertelsmann Stiftung, 2016; MSDE/NSDC Report, 2021; Faist et al., 2017; Docquier & Rapoport, 2008; DAAD, 2021; MMPA, 2022).

4.6.2.5. Balancing Brain Drain and Brain Circulation

Overall, Indo–German PPPs create a complex interaction of brain drain and brain circulation. For the majority, long-term residence in Germany lies in brain drain

trajectories driven by career and stability incentives (Commander et al., 2004; Beine & Docquier, 2008; Economic Times, 2024). For others, PPP participation indirectly facilitates circulation through mentoring, training, entrepreneurial initiatives, and partial returns (Saxenian, 2005; Faist et al., 2017; DAAD, 2021). The presence or absence of structured reintegration mechanisms, alumni engagement, and credential recognition largely determines which trajectory predominates (Bertelsmann Stiftung, 2016; MMPA, 2022; GIZ, 2020).

4.6.2.6. Document Analysis: Evidence from Policy and Literature

As shown in Table 6, the following 40 documents were categorized through a manual thematic review. Each was examined in detail, and recurring themes—such as brain circulation, migration policy, vocational training, and structural barriers—were identified inductively. Manual categorization, rather than software tools like NVivo or MAXQDA, was chosen to retain flexibility and allow context-specific interpretation of diverse sources, including policy documents, scholarly works, and program reports.

Bibliographic Reference	Type	Focus Area	Key Findings	Theme
Saxenian (2005) From Brain Drain to Brain Circulation	Peer-reviewed	Diaspora & circulation	Shows how diasporas foster transnational linkages	Brain Circulation
Docquier & Rapoport (2008) Brain drain & human capital	Peer-reviewed	Migration economics	Brain drain has both losses (home) and gains (host)	Migration Policy
Beine, Docquier & Rapoport (2001)	Peer-reviewed	Growth & migration	Links brain drain to growth, highlighting conditions	Migration Policy
Faist et al. (2017) Transnational Migration	Book	Transnationalism	Circularity often remains voluntary, shaped by networks	Brain Circulation
Bertelsmann Stiftung (2016) India's Students & Migration	Policy Report	Migration patterns	Highlights low return rates; Germany attracts long-term	Migration Policy
Bertelsmann Stiftung (2016) VET Reform in India	Policy Report	Vocational education	Identifies Germany-India skill cooperation models	Vocational Training
DAAD (2021) Annual Report: International Mobility	Policy Report	Student/alumni mobility	Shows alumni mentoring as informal circulation tool	Brain Circulation
DAAD (2023) Indian Student Numbers Record High	Policy Report	Higher education	Notes surge in Indian students in Germany	Migration Policy
GIZ (2022) IGVET II Project Brief	Program Report	Indo-German VET	Strengthens bilateral training pathways	Vocational Training
MSDE (2015) National Skill Development Policy	Policy	Indian skilling	Sets national agenda for skilling & global mobility	Vocational Training
MSDE (2018) Annual Report	Policy	Skilling system	Reports progress on PPP-based training	Vocational Training
MSDE (2024) Skilling Ecosystem Overview	Policy	Skills & employability	Identifies bottlenecks in recognition & placements	Vocational Training
NSDC (2020) Overview of TVET Ecosystem	Policy Brief	Indian vocational system	Notes outreach gaps; NGOs key for rural access	Vocational Training
OECD (2019) Skills Outlook 2019	Peer-reviewed / Intl Report	Digital skills	Bundled language/technical skills improve employability	Vocational Training
OECD (2023) Education at a Glance	Intl Report	Global skills	Compares cross-country VET outcomes	Vocational Training
OECD (2023) Skills Outlook 2023	Intl Report	Employability	Notes systemic inequities in skill recognition	Migration Policy
GOVET (2020) Indo-German Cooperation Notes	Program Report	VET Cooperation	Stresses German standards alignment	Vocational Training
BIBB-GOVET (2020) India Cooperation Notes	Program Report	Bilateral VET	Documents German-India partnership outcomes	Vocational Training
World Bank (2020) Skill Development in India	Policy Report	VET system	PPPs effective but fragmented	Vocational Training
Commander et al. (2004)	Peer-reviewed	IT migration	Indian IT shows "brain drain" but diaspora value creation	Brain Circulation
Economic Times (2024) India-Germany MMPA	Media/Policy	Migration partnership	Notes Germany's Skilled Immigration Act impact	Migration Policy
Govt. of Germany (2023) Skilled Immigration Act	Policy	Migration policy	Encourages permanent settlement, not circulation	Migration Policy
MMPA (2022) Migration & Mobility Partnership Agreement	Policy	Circulation policy	Frames India-Germany bilateral migration terms	Migration Policy
Brookings (2002) Saxenian Brain Circulation	Policy/Think Tank	High-skill mobility	Argues circulation benefits home and host countries	Brain Circulation
Nyarko (2011) Brain Drain in Africa	Peer-reviewed	Africa case study	Shows returns of circulation when structured	Brain Circulation
Kuznetsov (2005) Diaspora Networks	Policy/World Bank	Diaspora & skills	Outlines role of networks in knowledge transfer	Brain Circulation
ASER (2023) Vocational Education Brief	Policy	Youth skills	Inequities in rural/urban vocational access	Vocational Training
Khare (2014) Employability & Higher Ed in India	Peer-reviewed	Skill gaps	Identifies mismatch between higher education & jobs	Vocational Training
Shiji (2014) PPP in Higher Education	Peer-reviewed	PPP in higher ed	Examines PPP feasibility in education	Vocational Training
Kumari (2016) PPPs in School Education	Peer-reviewed	Equity & PPP	Shows PPPs improve access but challenges remain	Vocational Training
Springer (2016) PPPs & Skills Challenges	Book/Chapter	PPP policy	Discusses India's PPP role in skills	Vocational Training
Springer (2020) Innovative Youth Skills Models	Book/Chapter	Skills innovation	Highlights new models beyond schooling	Vocational Training
Frontiers in Education (2020) PPP in Education Management	Peer-reviewed	Education PPP	PPPs as governance mechanisms	Vocational Training
Gupta & Kothe (2021) Caste Gaps in Earnings	Peer-reviewed	Inequality	Shows caste inequities persist in labor markets	Equity/Structural Barriers
Vaidehi et al. (2021) Digital Divide in India	Peer-reviewed	Digital inequality	Notes caste & region-based digital gaps	Equity/Structural Barriers
Bahl & Sharma (2023) Informality & Mismatch	Peer-reviewed	Labor markets	Shows mismatch between skills and jobs	Equity/Structural Barriers
Das (2023) Urban-Rural Education Inequality	Peer-reviewed	Education inequality	Rural youth disadvantaged in higher education	Equity/Structural Barriers
Schneider & Pilz (2024) Employability Challenges	Peer-reviewed	VET & labor	Employers highlight youth skill gaps	Vocational Training
ijarpr.com (2020) PPPs in VET in India	Peer-reviewed	PPPs & VET	Finds PPPs improve employability but uneven quality	Vocational Training
AP News (2024) Germany increases skilled migrant quota	Media/Policy	Migration	Reports quota rise from 20k to 90k migrants	Migration Policy

Table 6: Summary of Documents Supporting RQ2
Source: Author

Analysis of forty documents—including peer-reviewed journals, government agreements, bilateral program reports, and migration statistics—confirms that PPPs effectively enable initial mobility but face structural constraints in promoting sustainable circulation (Docquier & Rapoport, 2008; Beine & Docquier, 2008; Saxenian, 2005; Faist et al., 2017; MMPA, 2022; DAAD, 2021).

Studies by Commander et al. (2004) and Bertelsmann Stiftung (2016) emphasize that migration of skilled workers often represents a loss of human capital for India, especially in IT, engineering, and healthcare. Conversely, Saxenian (2005) and Faist et al. (2017) highlight the potential of diaspora networks, mentoring, and entrepreneurship to facilitate two-way knowledge exchange, suggesting informal circulation can partially mitigate brain drain risks.

However, PPPs primarily focus on employability in Germany and lack integrated pathways for return. Recognition of German credentials in India remains inconsistent (Bertelsmann Stiftung, 2016; Faist et al., 2017; Docquier & Rapoport, 2008), and alumni networks, while enabling informal circulation, do not provide sustained engagement mechanisms. As a result, most circulation occurs through voluntary mentoring, networking, and entrepreneurial activities initiated by individual returnees (DAAD, 2021; MMPA, 2022).

4.6.2.7. Gaps and Contradictions

A critical tension emerges between theoretical optimism and empirical realities. Models of brain circulation suggest potential for two-way mobility, yet India–Germany data indicate low return rates and weak structural support (Faist et al., 2017; Economic Times, 2024). Policy misalignment exacerbates this issue: Germany’s visa reforms encourage long-term settlement, while India aims to promote circulation (Skilled Immigration Act, 2023; MMPA, 2022). Moreover, marginalized youth cohorts—including rural, low-income, and first-generation migrants—are often overlooked in both policy and research, despite being the primary targets of Indo–German PPPs (MSDE/NSDC Report, 2021; Bertelsmann Stiftung, 2016). Without equity-focused interventions, PPPs risk reinforcing one-way talent flows rather than sustainable circulation.

All in all, findings from participant narratives and document analysis depict a nuanced picture of Indo–German PPPs. While programs effectively facilitate mobility, education, and employment in Germany, their capacity to systematically promote brain circulation is limited. Knowledge and skills predominantly flow back to India through informal mentoring, networking, and entrepreneurial initiatives led by individual returnees (Saxenian, 2005; DAAD, 2021; Faist et al., 2017). Without deliberate reintegration policies and recognition frameworks, PPPs risk perpetuating one-directional brain drain. Institutionalization of re-entry channels and validation of foreign credentials is necessary to guarantee that human capital gained abroad gets directed back into India's society and economy strategically (MMPA, 2022; Bertelsmann Stiftung, 2016; GIZ, 2020).

4.7. Chapter Summary and Transition

The empirical findings of the study were presented in this chapter according to qualitative interviews with thirty-five participants and content analysis of forty policy, evaluation, and academic documents. The evidence displays how Indo–German Public–Private Partnerships (PPPs) influence education access and employability (RQ1) as well as migration outcomes, i.e., brain circulation or brain drain (RQ2).

The research found that Indo–German PPPs play a critical role in opening global learning opportunities to disadvantaged Indian youth. NGOs and outreach channels were significant in bringing rural and disadvantaged groups, while urban-based participants utilized university placement cells and friend referrals. Yet, there were still barriers: minimal German-speaking competencies, cost, and low digital literacy constrained the effectiveness of training, especially among Scheduled Caste/Tribe and rural participants. Employability outcomes were generally positive, with structured internships, job fairs, and recruiter linkages enabling many youths to secure placements in Germany. However, gaps were noted in long-term career counselling, structured mentoring, and re-entry planning. Social integration outcomes varied: participants with diaspora or peer networks experienced smoother adaptation, while others reported isolation or subtle discrimination. Overall, RQ1 findings suggest PPPs can expand access and employability but risk reproducing structural inequities unless supports are bundled and systematically delivered.

For migration outcomes, the findings indicate that PPPs are highly effective in enabling initial overseas mobility and employment but less effective in facilitating structured return and brain circulation. A majority of alumni remained in Germany due to stable labour market opportunities and limited reintegration pathways in India. Returnees often faced difficulties in credential recognition and career re-entry, leaving some underemployed.

Despite structural gaps, informal forms of circulation were evident. Alumni engaged in peer mentoring, webinars, and small business ventures, which allowed partial knowledge transfer back to India. These practices, however, were voluntary rather than program-supported. Documentary analysis reinforced this duality: while Germany's Skilled Immigration Act and migration quotas encourage long-term settlement, Indian policies seek circulation, creating a tension between national policy frameworks.

Across both RQ1 and RQ2, a clear pattern emerges: Indo–German PPPs serve as catalysts of mobility and skill acquisition but fall short in supporting equitable access and sustainable brain circulation. They succeed most when financial, linguistic, and psychosocial supports are bundled and when alumni or diaspora linkages are leveraged. Their limitations lie in fragmented reintegration mechanisms, inconsistent recognition of foreign credentials, and uneven inclusion of marginalized groups.

This empirical foundation sets the stage for Chapter 5, where these findings will be interpreted in light of theoretical frameworks on human capital, social capital, and migration. The Discussion will also elaborate on the policy implications, repositioning PPPs not only as pathways to employability abroad but as potential instruments for inclusive, circular skill mobility between India and Germany.

CHAPTER V: DISCUSSION

5.1 Revisiting the Research Questions

This chapter discusses the findings of the study in direct relation to the two research questions posed at the outset of the project, and situates them within the broader theoretical frameworks introduced in Chapter 2. The central aim of this exercise has been to critically evaluate how Indo–German Public–Private Partnerships (PPPs) shape educational access and employability for marginalised Indian youth, while also assessing the extent to which such partnerships enable the circulation of talent or contribute primarily to one-directional brain drain.

The two guiding research questions (RQs) were as follows:

- RQ1: How do Indo–German Public–Private Partnerships (PPPs) influence the educational access and employability of marginalised Indian youth?
- RQ2: To what extent do Indo–German PPPs foster circular migration, or do they contribute primarily to one-directional brain drain?

By returning to these questions, this chapter does not merely restate them but provides interpretive depth, drawing on the empirical findings and theoretical models presented earlier. In relation to RQ1, the findings highlight that Indo–German PPPs have indeed opened up important pathways for educational access and employability. These include scholarships, vocational training, internships, German language courses, and intercultural

orientation programmes. However, the evidence suggests that these benefits are unevenly distributed, with structural inequalities—such as caste, class, gender, and rural–urban divides—continuing to shape which students gain access and how effectively they are able to convert opportunities into outcomes. This confirms and extends the Human and Social Capital Framework introduced in Chapter 2 by demonstrating that employability is not solely a function of technical training but is also mediated by social networks, mentoring, and institutional supports.

Turning to RQ2, the findings reveal a complex and hybrid picture. While PPPs undeniably create avenues for outward mobility, particularly through Germany’s Skilled Immigration Act and related retention policies, they provide only weak or fragile mechanisms for return and reintegration into the Indian labour market. The Migration and Mobility Partnership Agreement (MMPA) of 2022, though significant at the policy level, lacks robust enforcement or systemic structures to ensure that returnees are able to reintegrate smoothly. Instead, circulation occurs indirectly in the guise of alumni-based mentoring, cyber diaspora networks, and selfless donations from individuals who wish to give back to their own communities. Such findings suggest that Indo–German PPPs are situated in a hybrid space between institutionalized brain drain and weak, small-scale brain circulation, a scenario which supports as well as complicates existing migration theories.

What instead emerges from examination is a balanced view: PPPs are powerful modes of mobility and empowerment, but their effects are not evenly felt. They do succeed in extending coverage and creating channels of access to global visibility, but they still

remain influenced by wider structural, cultural, and policy asymmetries. The models introduced in Chapter 2—the Human and Social Capital model and the Brain Drain versus Brain Circulation paradigm—are hence both confirmed but fortified. The evidence supports that human and social capital must be tackled together to tackle employability outcomes entirely, and that migration outcomes are best envisaged on a continuum rather than as dichotomous.

5.2 Interpretations of the Study Results and Proposed Frameworks

5.2.1 RQ1: Educational Access and Employability

The data suggest that Indo–German PPPs created strong avenues of access to employment and education for disadvantaged Indian youth, though they were spread in a differential way. Students from urban and middle-class backgrounds often accessed PPP opportunities through university placement cells or institutional linkages, while students from rural and caste-disadvantaged backgrounds relied heavily on NGOs, peer networks, and informal contacts. This underscores the centrality of social capital in mediating educational opportunities, thereby confirming and extending Bourdieu’s (1986) conceptualisation of capital as relational and embedded in networks.

Uneven Access and the Role of Networks

Human capital investments in the form of scholarships, vocational training, internships, and exposure to German labour markets did improve employability outcomes for participants. Yet, the degree to which these opportunities translated into successful

outcomes depended less on technical training alone and more on whether students could mobilise networks of support (Becker, 1993; Putnam, 2000). Alumni networks, diaspora communities, and NGO intermediaries proved decisive in helping participants navigate bureaucratic hurdles, cultural transitions, and labour market expectations.

Rural students, on the other hand, highlighted the critical role of NGO outreach. NGOs acted as gatekeepers by providing financial education workshops, pre-departure workshops, and assistance with program applications. Peer-to-peer mentoring was also crucial, whereby past students mentored younger cohorts through long procedures. Such unofficial help supplemented the PPPs' official services and literally bridged gaps generated by structural deficiencies.

Structural Barriers to Inclusion

In parallel, deepening barriers constrained participation. Some students demonstrated financial vulnerabilities that made even subsidised experience unsustainable. Others described how lower levels of German proficiency undermined integration despite training in technical skills. Digital divides also crystallised in which rural participants often had to make do without consistent access to digital platforms at the heart of application processes, training modules, or post-arrival integration support (OECD, 2019; ILO, 2020).

Additionally, structural caste and gender inequalities made these issues worse. For instance, some of the participants from Dalit and Adivasi background reported informal discrimination during preparatory training in India, which further broke down confidence.

Some female participants further spoke of gendered expectations of mobility and family responsibilities that limited full participation in opportunities abroad.

5.2.2. Revised Framework for RQ1: Education-to-Employment Pipeline

As is evident in Figure 5, the new framework for RQ1 stipulates how Indo–German Public–Private Partnerships (PPPs) influence educational access and employability for marginalized Indian youth as well as defines the limitation of such efforts in the structural inequality context. Rather than thinking of the education-to-workstream as a linear unproblematic process, the findings of this research indicate a more complex and multi-layered process wherein inputs, mediators, and barriers interact to shape outcomes. The next section unravels the framework in narrative, situating each part in the general context of human capital and social capital theories and also drawing on the empirical insights drawn out of participant accounts.

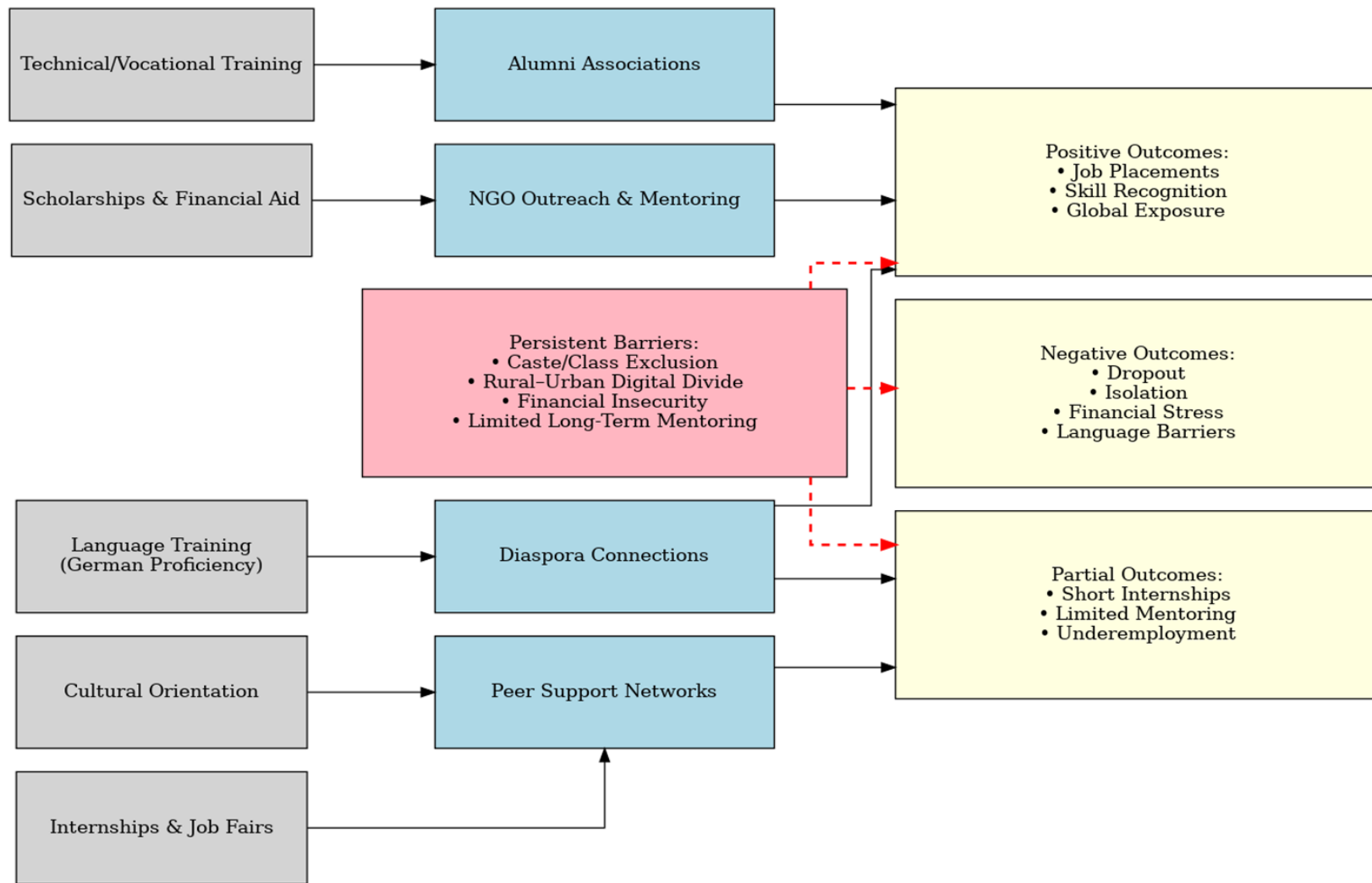


Figure.5: Modified Proposed Framework for RQ1
Source: Author Redesigned

Inputs: Human Capital Investments

At the core of the model are not just the Indo–German PPPs' human capital investment but also its constituent elements like scholarships, vocational and technical skills training, internships, language support, and cultural orientation. According to Becker's (1993) theory of human capital, these inputs ought to result in improved productivity, skills, and ultimately employability. The narratives of the participants prove the theoretical proposition but also the asymmetrical accessibility of the resources.

Scholarships and aid, for instance, were repeatedly cited as being essential enablers for students from low-income families. Without them, various interviewees described how they would not have been able to enroll in higher education or vocational training as part of PPP schemes. Even so, scholarship allocation remained biased towards existing students in higher-end institutions, so the most at-risk—rural college students or those from caste-disadvantaged communities—remained underrepresented. This uneven allocation reflects Jodhka's (2012) argument that structural inequalities in India continue to limit educational mobility outside formal avenues of inclusion.

Vocational and technical training activities represented a second key input, providing experiential learning aligned with German standards in the labour market. Several respondents accounted for the ways in which participation in IGVET and Mittelstand PPPs introduced them to industry standards not available in their home institutions otherwise. However, as Khare (2014) emphasizes, technical training in itself is not guaranteed to fill the employability gap if not complemented by mentoring and career counseling over the long term. This was one deficiency present when students had

completed short-term training modules but were not able to secure extended work, either through absence of connections or institutional bias.

Internships and job fairs also emerged as important liminal spaces between the world of education and work. They provided students with exposure to professional environments, exposure to workplace culture, and in some cases, even the way to secure long-term employment. However, there seemed to be clear inequality between participants from urban campuses who were able to avail themselves of such opportunities and others from rural or under-resourced contexts, who were more likely to face logistical, economic, and informational barriers to participation. This reinforces Shiji's (2014) point about information asymmetry in Indian PPPs, where opportunities exist but are not equally distributed.

German language training and cultural orientation were also crucial inputs, particularly because integration into the German labour market depends heavily on linguistic proficiency and cultural adaptability. Several participants noted that despite receiving technical training, their limited German proficiency became a major barrier to employability. This is in agreement with OECD (2019), who highlight that language ability is typically the key to successful integration into host labour markets. Cultural orientation classes, where offered, introduced participants initially to German attitudes in the workplace, social norms, and administrative processes. However, these were frequently poorly constructed or unevenly covered, leaving most participants poorly prepared for the cultural issues of migration.

All these inputs confirm that Indo–German PPPs do make tangible investments in human capital. Nonetheless, their capacity to drive employability is largely dependent on whether mediating supports are in place and the capacity to overcome structural barriers.

Mediators: Social Capital Enablers

The results of this research strongly indicate that human capital investments in themselves were not enough to ensure employability. Rather, the determining factor was whether or not there existed social capital, defined here as in Bourdieu (1986) and Putnam (2000) as resources transferred through networks of relationships, trust, and reciprocity.

NGO outreach and coaching emerged as crucial intermediaries. Students from rural or caste-marginalized backgrounds accessed PPP schemes not through formal university systems, but through NGO intermediaries that translated information, mentoring, and psychosocial guidance. These NGOs played a critical role in "translating" opportunities into forms that could be utilized and navigating participants through cumbersome application processes. By doing so, NGOs acted as equalizing forces, partially countering the traps of bounded institutional capital in settings lacking resources.

Peer support groups also proved useful, particularly in sustaining motivation and offering informal mentoring. Respondents described the ways in which students who had navigated the PPP process became successful role models, guides, and even useful sources of assistance through the provision of application preparation or intern placement. These peer networks extend Putnam's (2000) bonding social capital, where

close relationships within the marginalized communities are turned into survival strategies when institutional support proves insufficient.

Alumni networks and diaspora connections were an additional scale of mediating assistance. Alumni of earlier PPP rounds frequently transferred information, contacts, and sponsorship informalities to new arrivals. Similarly, diaspora diasporas in Germany offered accommodation, job search, and culture adjustment support. These findings align with Saxenian's (2005) work on transnational diaspora networks, where the author explains how migrants enhance home and host nations with knowledge and resource movements. Diaspora outreach helped to alleviate some of the challenges faced by participants, although the networks were not always accessible to the most excluded. Finally, online application platforms, training, and post-arrival settlement functioned as mediators and barriers, depending on availability. For participants with secured digital access, online systems facilitated application processes, provided language training resources, and matched them with mentors abroad. But for less digitally connected rural interviewees, the same digitalization of PPP procedures created exclusionary impacts, which worked to maintain digital divides. This is consistent with Warschauer's (2004) argument that digital inclusion is a question not just of access to technology but of being in a position to make effective use of it in terms of broader social inequalities.

Generally, social capital enablers were oftentimes the point of no return between failure and success. Students who were connected with diaspora, alumni, and NGOs were much more likely to tap human capital investments into employable assets than students lacking such connections.

Barriers: Structural Constraints

Despite large inputs and mediating interferences, the study showed that structural obstacles were still at work to affect unequal outcomes. The obstacles acted as systemic restraints, weakening the capacity of PPP programs to yield equitable outputs.

Financial insecurity was the most frequent limitation. After scholarships reduced charges of fees, still many students reported difficulties in covering living expenses, transportation, or other unforeseen expenses of studying. These usually led to dropout or hindered students from maximally capitalizing on available opportunities. The observation mirrors Tilak's (2007) argument that financial aid in India also fails to meet fully marginalised groups' total cost of studying.

Caste and class inequalities were a major obstacle as well. Socioeconomic disadvantaged students were often discriminated against in institutional assistance or directed toward lower-grade opportunities in PPP frameworks. This is a reflection of Bourdieu's (1986) sensitivity to how social orders come to be reproduced through institutional practice even in environments that seem to promote equity.

Gendered mobility limitations also appeared as a spontaneous issue. Women participants, especially those who originated from rural and conservative backgrounds, often needed to surmount family resistance to undertaking overseas training or migration. Even when they did join, women participants needed to address gendered assumptions in classrooms and workplaces that limited their advancement. This is in agreement with Deshpande's (2011) study on gender and education in India that illustrates how patriarchal

assumptions continue to constrain women's mobility even after formal policy involvement towards gender equality.

Language skill deficits were a barrier to overcome, with many of the participants not being able to reach a level of German language sufficient for integration into employment. While language courses were available, their shortfalls in duration, lack of contextualization within practice, and financial outlays limited their effect. The OECD (2019) has also emphasized the gatekeeping role played by language in labour market integration.

Finally, the digital divide between rural and urban areas increased disparities in access.

Rural participants frequently mentioned difficulties in accessing online tools, training modules, or even basic modes of communication with program administrators.

Addressing this limitation indicates the uneven extent of digital infrastructure in India and its relevance to transnational educational mobility.

Outcomes

The outcome of Indo–German PPPs, as documented in this research, was therefore mixed. Whereas some respondents indicated greater employability, greater international exposure, and even career mobility in a couple of cases, others did not necessarily exhibit the same degree of improvement. Cases of success demonstrate the capacity of PPPs to act as transformational bridges connecting marginal youth and international labour markets. The skewed trend of inputs, mediators, and blockers, nevertheless, confirmed that not all individuals in each category had the same experience of development.

For some, participation resulted in meaningful career advancement, particularly when social capital supports amplified human capital investments. For others, structural barriers curtailed the benefits, leading to partial or uneven outcomes. In this sense, the framework refines the original education-to-employment model by showing that employability is not simply the product of training but is contingent on the interplay of human and social capital within a context of persistent structural inequalities.

This layered understanding underscores the central claim of this research: while Indo–German PPPs expand opportunities for marginalised youth, they cannot substitute for systemic reforms in education and social protection. Without equity safeguards, the benefits of PPPs will remain disproportionately accessible to those already equipped with stronger forms of capital, thereby limiting the transformative potential of these initiatives.

5.2.3 Findings for RQ2: Migration Outcomes and Brain Circulation

The second research question centred on whether PPPs facilitate circulation of talent between India and Germany or whether they largely contribute to one-way brain drain. The analysis of participant trajectories suggests that PPPs lean strongly toward outward migration, with relatively fragile return pathways.

Outward Pull and Fragile Return Pathways

The German Skilled Immigration Act (2023) and associated institutional supports provided attractive opportunities for participants to remain in Germany after their training. Career stability, advanced infrastructure, and access to professional growth in

Germany reinforced this outward pull (Bertelsmann Stiftung, 2016). Conversely, India's Migration and Mobility Partnership Agreement (MMPA) of 2022, while rhetorically promoting circulation, lacked robust re-entry, recognition, and reintegration mechanisms to anchor returnees. Many participants who attempted to reintegrate faced wage devaluation, lack of recognition for German-acquired qualifications, and mismatches between their acquired skills and domestic opportunities.

Hybrid Outcomes: Drain and Circulation

In practice, two pathways emerged from the framework introduced in Chapter 2. On one hand, structured pathways facilitated long-term retention abroad, bolstered by destination-country policies. On the other hand, circulation depended primarily on individual agency rather than systemic design. Informal brain circulation manifested in grassroots initiatives, such as alumni-led mentoring, digital webinars, and diaspora contributions to local training. These forms of circulation, however, remained voluntary, fragile, and small-scale rather than institutionalised or policy-driven (Saxenian, 2005; Docquier & Rapoport, 2008).

5.2.4. Revised Framework for RQ2: Brain Drain vs Circulation

As shown in Figure 6, the revised proposed framework for RQ2 addresses the migration outcomes of Indo–German PPPs, specifically whether these initiatives foster circular migration or contribute primarily to one-directional brain drain. The analysis reveals that, while PPPs create valuable pathways for mobility, their effects are overwhelmingly tilted

toward permanent outward migration. Circulation exists, but only in fragile, small-scale, and largely informal forms. This section narratively expands the framework, situating it within wider debates about brain drain, brain circulation, and migration systems theory.

Institutionalised Outward Flows

One of the most striking findings of this study is the extent to which Indo–German PPPs are embedded within an institutional framework that encourages permanent migration to Germany. The German Skilled Immigration Act (2023) leads the way in this case. The act facilitated skilled workers' immigration through establishing transparent avenues for residency, recognizing certain qualifications, and de-bureaucratized procedures. For PPP participants who were already invested in technical education and exposure to German labour markets, the Act presented them with an attractive option of residing in Germany in the long term.

The interviewees frequently mentioned the appeal of career stability, professional promotion, and higher pay in Germany compared to India. Advanced infrastructure, secure employment rights, and efficient social security provisions also highlighted the appeal of remaining abroad. These findings confirm Docquier and Rapoport's (2008) argument that salient pull factors in destination countries have a conclusive role in shaping migration results. In the Indo–German case, these pull factors were not incidental but institutionally created in the configuration of bilateral cooperation itself.

It was also sustained from the opposite side by German employers who also had a tendency to attempt to retain PPP-trained graduates. Interviewees showed that they were

offered contracts that are longer than the tenure of their internship or training, thus securing them in the German labour market. This is similar to the finding of Bertelsmann Stiftung (2016) regarding the structural imbalance between Germany and India as regards systems for labour demand and recognition. While Germany largely institutionalised mechanisms in order to retain skilled workers, India lagged behind in instituting incentives for their return.

Weak Return Mechanisms in India

In contrast to the robust institutional pull of Germany, the Indian side of the partnership exhibited poor reintegration mechanisms for returnees. Returnee respondents who attempted return to India also experienced wage devaluation as German-earned qualifications were not fully accepted within the country's labour market. Despite useful technical know-how and international exposure, returnees ended up with lower-paid jobs and limited career prospects compared to similar leave-behind counterparts.

This lack of recognition indicates policy loopholes in India's migration and mobility policy throughout history. The 2022 Migration and Mobility Partnership Agreement (MMPA) that theoretically adopted circular migration was not accompanied by operational frameworks to involve returnees in work. For instance, there were no official re-entry fellowships, tax credits, or qualification recognition boards to support conversion of overseas experience into local career development by returnees. Thus, the majority of participants who had initially planned to return felt compelled to remain in Germany because of economic realities.

Social reintegration also did not have institutional facilitators. A number of participants discoursed about difficulties in being able to fit into Indian work cultures after extended periods in Germany. This mismatch between their idealized expectations, fashioned by German professional standards of practice, and Indian workplaces created frustration and in some cases, repeated migration. These validate Massey et al.'s (1993) migration systems theory, emphasizing that the outcome of migration is not only determined by individual agency but also by structural congruences between sending and receiving environments. Here, the imbalance between India's weak reintegration systems and Germany's strong retention systems shifted the balance towards permanent migration

Informal Circulation in Grassroots and Voluntary

Despite outward flows' dominance, informal brain circulation evidence sustained at the local level was identified. Alumni-initiated mentoring, cyber-diaspora networks, and limited returnee entrepreneurship all favored cross-linkages in knowledge transfers between India and Germany.

Alumni mentoring was an extremely important avenue. Alumni from earlier PPP cohorts tended to be offering guidance to prospective participants, with advice on navigating bureaucratic barriers, interviewing, and settling into German working cultures. Alumni networks were loose but had a very significant impact in reducing barriers for new entrants. They illustrate Saxenian's (2005) argument that diaspora networks can act as substitutes for traditional state institutions in ensuring transnational channels of knowledge and resources.

Digital diaspora initiatives also facilitated circulation. Respondents indicated that they were engaged in webinars, WhatsApp groups, and online forums where returnees and diaspora specialists shared experience and resources with Indian peers. Virtual platforms facilitated rapid, low-cost exchange of information and, in some cases, opened up gateways for collaborative working on projects or training modules. But, as Warschauer (2004) cautions, digital platforms are only as effective as the extent of their inclusion.

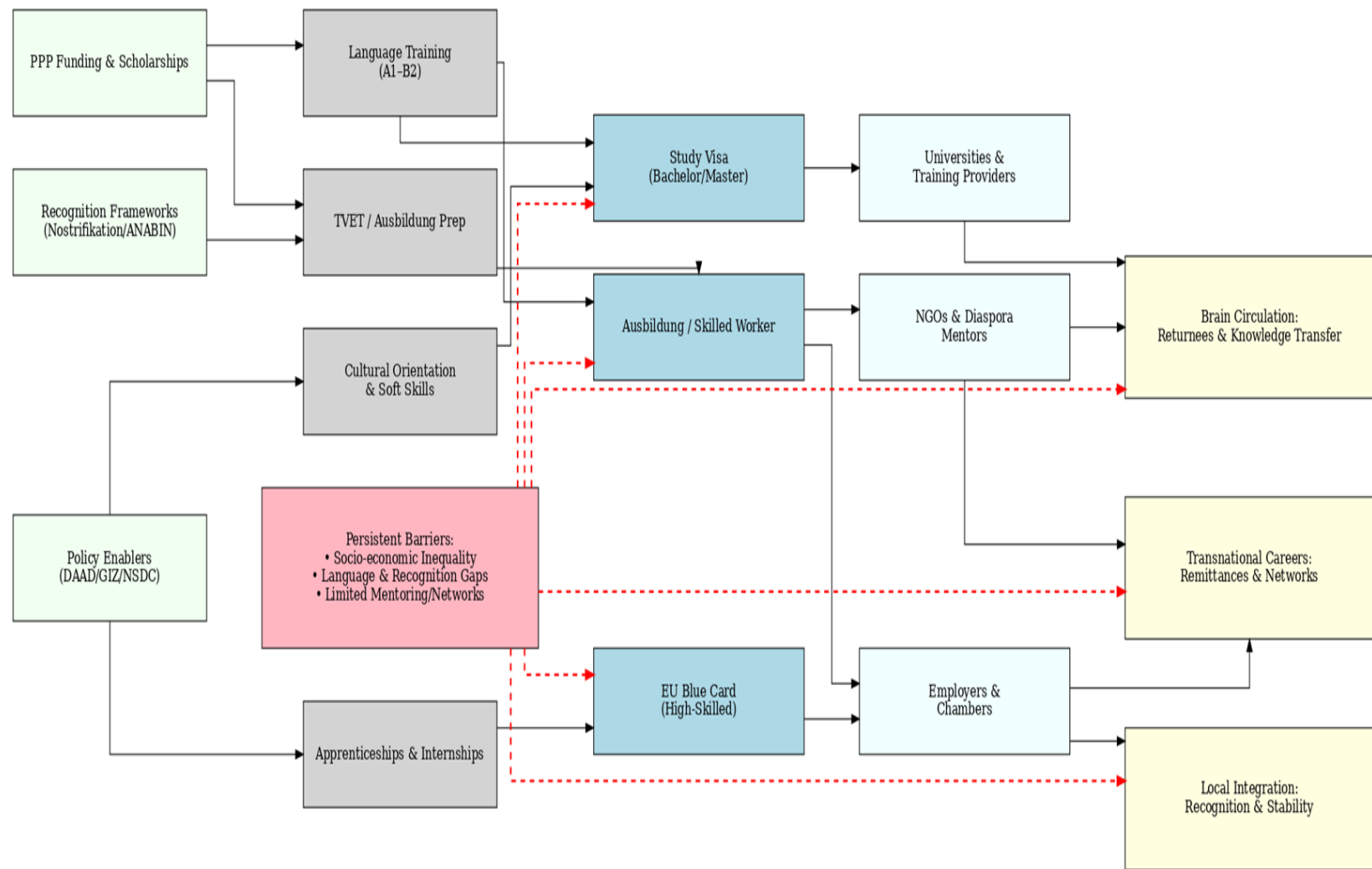


Figure.6: Modified Proposed Framework for RQ2
Source: Author

For rural and marginalized ones, restricted access cut short their ability to engage in these virtual modes of circulation. Returnee entrepreneurship was yet another form of informal circulation, but one that was restrictive in its scope. A few of the limited players who traveled to India after being trained in Germany discussed starting tiny enterprises or vocational training institutes, leveraging their international experience to build opportunity at the grassroots level. These attempts, while notable, were most frequently individually initiated and not institutionally supported. They illustrate the potential of return migration to contribute to development but also underscore its fragility in the absence of enabling frameworks.

Outcomes: Hybrid Migration Model

The overall outcome of Indo–German PPPs, as captured in this study, is a hybrid migration model tilted toward permanent outward flows but accompanied by fragile, small-scale circulation. This complicates the binary framing of brain drain versus brain circulation often found in the literature. Instead, the Indo–German case illustrates that both dynamics can coexist, but with unequal weight.

Outward migration is strongly institutionalised through Germany’s retention mechanisms, creating a relatively stable pathway for permanent migration. In contrast, circulation persists in voluntary, fragile forms that depend heavily on individual agency, diaspora goodwill, and informal networks. This imbalance confirms Docquier and Rapoport’s (2008) warning that without structural supports, circulation risks collapsing

into drain. At the same time, it validates Saxenian's (2005) claim that grassroots networks can sustain circulation, albeit in limited ways.

From a theoretical perspective, the findings refine the brain drain versus brain circulation debate by positioning outcomes on a continuum rather than a dichotomy. Indo–German PPPs demonstrate that hybrid outcomes are not only possible but likely in contexts where institutional asymmetries exist. Policy asymmetry, in particular, emerges as a decisive factor shaping the tilt toward permanent migration.

5.3 Comparison with Prior Studies

Placing the findings of this study alongside existing literature reveals both points of confirmation and important refinements, while also highlighting some contradictions that open new pathways for debate. In the area of educational access and employability, the findings corroborate earlier research, particularly Shiji's (2014) observation that Public–Private Partnerships (PPPs) in India are frequently constrained by information asymmetry. Just as Shiji noted, many marginalized groups remain unaware of PPP opportunities unless mediated by NGOs or peer-to-peer networks, while urban and middle-class students are more likely to gain access through formal institutional channels. This study therefore reinforces the persistence of informational inequalities and underlines the critical role of intermediaries in mitigating exclusion.

The results also align with Khare's (2014) work, which emphasized that employability gaps in India's higher education system are not solely attributable to deficits in technical training but are also linked to the absence of structured mentoring and long-term career

support. Participants in this study echoed similar concerns, reporting that although internships and short-term training were helpful, they did not always translate into sustainable career advancement. The findings thus reaffirm that human capital interventions must be paired with robust social and institutional supports if employability is to be meaningfully improved.

Turning to the migration dimension, this study resonates with the argument advanced by Docquier and Rapoport (2008) that weak reintegration structures in sending countries, combined with strong retention policies in destination countries, inevitably push outcomes toward brain drain. Germany's Skilled Immigration Act (2023), with its clear pathways for permanent residence, reinforced retention abroad, while India's lack of recognition frameworks for German qualifications hindered return and reintegration. This mirrors broader global trends where imbalances in policy design perpetuate one-directional migration flows.

At the same time, the present research adds nuance by highlighting the role of informal diaspora-led initiatives in sustaining fragile forms of brain circulation. Echoing Saxenian's (2005) influential work on diaspora networks, the study shows how alumni mentoring, digital webinars, and returnee entrepreneurship create small but meaningful channels of knowledge and skill transfer back to India. While these initiatives are voluntary and limited in scale, they illustrate that grassroots agency can partly counteract structural deficiencies. This dimension enriches the literature by drawing attention to the interplay between institutional structures and informal networks in shaping migration outcomes.

However, this study also departs from certain earlier conclusions, most notably Faist et al. (2017), who argue that structured frameworks are the decisive factor enabling brain circulation. While structured policy frameworks are undoubtedly influential, the Indo–German case illustrates that grassroots and informal networks continue to play an important role, even in the absence of strong institutional scaffolding. These informal mechanisms are insufficient to create systemic circulation, but their presence complicates the notion that only state-driven frameworks can sustain mobility.

Overall, the findings refine existing literature by emphasizing hybrid outcomes: on one side, institutionalized brain drain sustained by strong destination-country policies and weak origin-country reintegration; on the other, fragile but real brain circulation driven by diaspora goodwill and informal networks. This duality positions Indo–German PPPs as an illustrative case of how global mobility is shaped not by binary logics of drain or circulation, but by the coexistence of both, each mediated by different levels of structure and agency.

5.4 Contributions of the Study

5.4.1 Theoretical Contributions

This study makes theoretical contributions in four related domains: human capital, social capital, brain circulation, and migration systems theory. While it confirms some axiomatic presuppositions, it also finds important caveats and nuances which are visible most clearly in the Indo–German PPP context.

The study confirms, first and foremost, Becker's (1993) human capital theory because it presumes that investments in training and education increase productivity and employability at the level of the individual. PPP participants consistently stated that contact with internships, technical training, and scholarships enhanced their abilities and hard-won market opportunities. Yet the evidence also suggests the reach of the limitations of a strictly human capital model if placed within the context of entrenched disadvantage. Structural obstacles such as rural–urban divisions, gendered norms, and caste hierarchies diluted training's carrying capacity. Such participants with comparably levels of technical education had contrasting fates depending on whether or not they possessed the ability to leverage financial resources, language proficiency, or social networks. Thus, while human capital investments are necessary, they are insufficient to explain labor market outcomes, and thus the theory must be adjusted for capturing unequal social structures intervening in the returns on education.

Second, the research strongly affirms Bourdieu's (1986) and Putnam's (2000) conceptualisations of social capital. Access to networks—through NGOs, peer groups, alumni associations, or diaspora communities—emerged as a decisive factor in shaping outcomes. Students who possessed or could access such networks were far more successful in converting training opportunities into tangible employment. Conversely, participants without access to these forms of social capital struggled, regardless of their technical skills. This elevates social capital from a supplementary factor to a central determinant of employability and mobility, reinforcing the claim that opportunities are embedded within relational and institutional contexts. The findings therefore extend

social capital theory by emphasising its transnational dimension: in PPP contexts, networks operate not only locally but also across borders, with diaspora engagement playing a particularly crucial role.

Third, the study contributes to the brain drain versus brain circulation debate by showing that outcomes are not neatly binary. Instead, Indo–German PPPs generate hybrid flows. Outward migration is strongly institutionalised through German policies and employer demand, while circulation occurs in fragile, small-scale, and informal forms, such as alumni mentoring and digital diaspora initiatives. This challenges earlier dichotomous framings and suggests that migration should be conceptualised as a continuum of outcomes, with varying degrees of institutionalisation and informality. The Indo–German case demonstrates that without structured return pathways, circulation risks being reduced to isolated acts of goodwill rather than systemic processes. This refinement aligns with and extends Saxenian’s (2005) insights into diaspora-led circulation while also validating Docquier and Rapoport’s (2008) caution that strong destination-country pull factors can tip the balance toward permanent retention.

Finally, the study intersects with migration systems theory (Massey et al., 1993). This model centers on the interaction between macro-structural conditions, meso-institutional frameworks, and micro-agency in shaping migration patterns. The Indo–German case verifies this stance but extends it by referring to policy asymmetry as a definitive anchor. Inconsistency between Germany's strong institutional structures to retain and India's weak reintegration programs tilted the system towards permanent migration. This shows that systemic outcomes are not just a function of push–pull forces and networks but also

policy misalignment between the sending and receiving countries on purpose. By laying focus on policy asymmetry, this study improves migration systems theory and shows that all future analyses need to factor state-to-state coordination—or its absence—among the most significant explanatory variables.

Thus, Indo–German PPP practice contributes to theory by putting equity, networks, and policy misalignment first as essential drivers of impacts. Human capital theory is nuanced with inequality; social capital is marketed as determinative; the brain drain/circulation dichotomy is reimaged as a spectrum; and migration systems theory is extended by policy asymmetry. Collectively, these theoretical contributions provide a fuller picture of the ways in which PPPs organize education and migration outcomes in transnational locations.

5.4.2 Practical Implications

This research's recommendations have widespread implications for governments, NGOs, schools, employers, and diaspora communities. Overall, they are a call to shift away from piecemeal, transactional PPP interventions towards a whole-of-ecosystem approach that places inclusivity, sustainability, and circular mobility at the center.

For governments, the findings suggest the necessity of stepping up policy coordination between Germany and India. On the Indian side, the lack of recognition of qualifications attained in Germany emerged as the biggest obstacle to reintegration that is sustainable. Without proper systems to check foreign qualifications, returnees are likely to find their earnings reduced and career advancement brought to a stop. In order to solve this, there

should be qualification recognition boards established strongly, along with re-entry fellowships that allow returning professionals to seamlessly integrate into the domestic labour market. Besides, India could design incentive packages—such as tax credits, innovation subsidies, or special hiring drives—that encourage return migration. Germany, by contrast, must balance retention incentives built into its Skilled Immigration Act with bilateral commitments under the Migration and Mobility Partnership Agreement (MMPA, 2022). Unless closely watched, retention measures can lead to one-way movements, which run counter to the stated aim of encouraging circularity. Bilateral policy regimes should therefore include mutual monitoring and responsibility mechanisms to guarantee that mobility is indeed two-way.

The take-home messages for NGOs are that their grass-roots activities of bridging gaps in access, information, and psychosocial care are vindicated. NGOs often served as a first contact point for marginalized students, helping them with application procedures, training preparation, and bypassing psychological barriers to migration. However, their initiative is under-funded and under-appreciated. Rather than viewing NGOs as marginal actors, PPPs must institutionalize their place as full partners with guaranteed sustainable funding and integration as business as usual in program design. In doing so, their local credibility and presence in communities can be utilized to extend coverage for vulnerable groups, as the International Labour Organization (ILO, 2020) has called for.

The impacts extend to learning institutions beyond technical training. Universities and vocational schools are required to incorporate intercultural orientation, career counseling, and formal alumni mobilization into their PPP-related activities. This means preparing

students not only for short-term jobs but for long-term integration in transnational labour markets. By building alumni networks, institutions can create peer mentoring and professional assistance systems that are self-financing, which can reciprocally enhance employability and circulation.

To industry actors, the study identifies a necessity to move out of transactional hiring approaches. Employers, both in India and Germany, benefit directly from PPP-trained graduates, but their involvement often ends at the point of recruitment. By investing in structured mentoring, leadership development programs, and recognition of foreign-acquired skills, employers can help sustain professional growth and, importantly, encourage return migration by validating international experiences. This would also align with broader corporate social responsibility objectives, positioning industry as a key stakeholder in promoting equitable mobility.

Finally, the role of diaspora networks must be more strategically leveraged. Alumni and diaspora goodwill currently sustain fragile forms of brain circulation, but these efforts lack scale and institutional support. Governments and PPP stakeholders should therefore invest in digital diaspora platforms, alumni job boards, and collaborative innovation hubs that transform goodwill into sustainable systems of knowledge transfer (Saxenian, 2005). By institutionalising diaspora engagement, circulation can move from voluntary and small-scale to structured and impactful.

Taken together, these implications reinforce the need for an integrated PPP ecosystem in which governments, NGOs, institutions, industry, and diaspora collaborate systematically. Moving from transactional training models to holistic systems of support

is essential for ensuring that PPPs deliver not just skills, but equitable, sustainable, and circular outcomes for marginalised youth.

5.5 Chapter Summary and Transition

Chapter 5 has examined the study's findings in relation to the two central research questions on Indo–German Public–Private Partnerships (PPPs), educational access, employability, and migration outcomes for marginalised Indian youth.

In addressing RQ1, the study found that PPPs enhance educational and vocational opportunities through scholarships, training, internships, language courses, and cultural orientation. However, access and outcomes were uneven, shaped by structural inequalities such as caste, class, gender, and rural–urban divides. Social capital emerged as a critical mediator: networks provided by NGOs, alumni, peer groups, and diaspora communities were essential for translating human capital investments into employable outcomes. This refined the education-to-employment model, showing that employability depends on the interaction of inputs, mediators, and structural barriers rather than technical training alone.

For RQ2, the study revealed a hybrid migration model. Germany's institutional retention mechanisms, particularly the Skilled Immigration Act (2023), strongly encouraged permanent migration, while India's reintegration pathways remained weak. Informal forms of circulation, such as alumni mentoring, digital diaspora networks, and small-scale returnee initiatives, exist but are fragile and reliant on individual agency. These findings suggest that migration outcomes lie on a continuum between brain drain and

brain circulation, shaped by policy asymmetries, institutional incentives, and grassroots networks.

Comparisons with prior research confirm the importance of intermediaries and mentoring in access and employability (Shiji, 2014; Khare, 2014) and the influence of destination-country pull factors on migration outcomes (Docquier & Rapoport, 2008). This study contributes new insights by highlighting the transnational dimension of social capital and the role of informal networks in sustaining fragile circulation, while also demonstrating the persistent impact of structural inequalities.

The theoretical contributions include: refining human capital theory to account for structural inequalities; extending social capital theory to emphasise transnational networks; reframing the brain drain/circulation debate as a continuum; and enriching migration systems theory by foregrounding policy asymmetry. Practically, the findings underline the need for a coordinated PPP ecosystem that integrates governments, NGOs, institutions, industry, and diaspora to ensure inclusive, sustainable, and circular outcomes.

Overall, Chapter 5 demonstrates that while Indo–German PPPs can transform educational and professional trajectories for marginalised youth, their impact is conditioned by structural, social, and policy factors. These results provide the basis on which Chapter 6 is founded, which summarises significant findings, draws widely-based conclusions, and offers practice and policy recommendations for balanced and effective transnational partnerships.

CHAPTER VI: SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

6.1 Restating the Purpose, Research Questions, and Methods

This dissertation aims to analyse the influence of Indo–German Public–Private Partnerships (PPPs) on the educational access, employability, and migration of marginalised Indian youth. PPPs are embedded within the growing vocational training and human capital development globalization frameworks. While still touted as "innovative" solutions to facilitate employability and opportunities for young professionals, the positive narratives surrounding PPPs are often concealing more complex realities. While PPPs do provide access to training and mobility, it remains to be proven whether they facilitate sustainable development ‘brain circulation’ or are simply conduits for one-way ‘brain drain.’ This research attempts to unpack these dynamics and assess the extent to which PPPs satisfy their declared aims.

This inquiry was guided by the following two Research Questions (RQs):

- RQ1: How do Indo–German PPPs influence the educational access and employability of marginalized Indian youth?
- RQ2: To what extent do Indo–German PPPs foster circular migration, or do they contribute primarily to one-directional brain drain?

These questions were chosen not only to capture the dual dimensions of education and migration but also to position Indo–German PPPs within broader debates about human

capital, social capital, and transnational mobility. The first question sought to illuminate whether PPPs genuinely enhance educational opportunities and employability for marginalized youth, particularly those from disadvantaged caste, class, or rural backgrounds, or whether access remains skewed in favour of relatively privileged groups. The second question extended the scope of inquiry to migration, exploring whether PPPs facilitate the circulation of skills and knowledge between India and Germany or reinforce permanent migration patterns that deprive India of its human capital. Taken together, the two questions represent the conceptual core of the research: interrogating both the promise and the pitfalls of PPPs in addressing systemic inequalities and shaping transnational youth trajectories.

To answer these questions, the study employed a qualitative research design, which was considered the most appropriate approach given the exploratory and interpretive nature of the inquiry. Quantitative surveys might have revealed broad trends, but they would not have been sufficient to capture the layered experiences, structural constraints, and everyday negotiations faced by participants navigating PPP programs. Instead, qualitative methods allowed the researcher to go deeper into individual narratives and uncover the subtleties that often remain hidden in statistical analysis.

Online survey comprised the core of the data collection exercise. Thirty-five participants were interviewed, all of whom were directly engaged with three flagship Indo–German PPP projects: the Indo–German Vocational Education and Training (IGVET) program, the Make in India Mittelstand project, and selected Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) projects. These projects were chosen because they

are among the most prominent and influential PPP examples between Germany and India in vocational training, industrial collaboration, and skill upgrading. By making use of all these initiatives' participants, the study endeavored to cover a broad sample of experiences while maintaining the magnitude of detail provided through qualitative research.

The online surveys were done using the Google Form, balancing consistency with flexibility. Central questions ensured common themes were addressed in all the interviews, while the open-ended nature offered space for participants to connect personal experiences, reflect on challenges, and comment on outlooks that the researcher might have not imagined beforehand. This adaptability proved particularly helpful in uncovering the significance of social networks, cultural accommodation, and new media—topics that would perhaps not have occurred within more formally defined research.

To enhance the robustness of the analysis, the interview findings were supplemented with second sources. These included policy documents, such as India's Migration and Mobility Partnership Agreement (MMPA) and Germany's Skilled Immigration Act, and institutional reports by universities, NGOs, and bilateral agencies who participate in PPPs. Scholarly articles on human capital, social capital, and migration frameworks provided a conceptual lens whereby the empirical findings could be interpreted. The application of interview triangulation with documentary and theoretical evidence contributed to the validity of the study and safeguarded against conclusions based on

anecdotal data alone. No less important was the application of reflexivity and transparency throughout the research.

Knowing that qualitative research is guided by the positionality of the researcher, caution was exercised in being critically self-reflexive regarding assumption and bias potential. Reflexive notes and memos were kept throughout the research to capture decisions, uncertainties, and interpretive challenges. In qualitative inquiry, complete neutrality is unattainable, yet these records helped reduce bias and strengthen the credibility of the findings.

The study was deliberately designed to pursue depth and complexity. By drawing on documentary analysis, theoretical reflection, and structured online questionnaire with open-ended items, it generated a layered dataset that shed light on Indo–German PPPs from multiple angles. These methods were well suited to the dual research questions, since they revealed not only measurable outcomes—such as migration pathways and employability—but also less visible processes involving social capital, exclusion, and policy asymmetry. Together, purpose, questions, and methods formed a coherent framework that placed the study at the intersection of migration and education research. Importantly, it sought to amplify marginalized voices and to narrow the gap between policy rhetoric and lived reality.

6.2 Summary of the Primary Findings

The findings reveal a complex reality. Indo–German PPPs create valuable opportunities for disadvantaged Indian youth, yet they also mirror many of the structural barriers they

aim to dismantle. Interviews and document reviews highlight this tension: these partnerships can open doors, but they can also reinforce divides.

When it comes to educational access and finding work, Indo–German PPPs helped lower some traditional barriers. Scholarships, training, internships, and job placement made options that were once out of reach accessible—especially for young people from low-income families. For most, these programs offered an important stepping stone. But the benefits didn’t reach everyone equally. Middle-class and urban youth had an easier time accessing PPPs through their universities, while those from rural or marginalized backgrounds often depended on NGOs or personal networks. This uneven access shows how crucial social connections are. While short-term programs like job fairs or internships helped with employability, long-term support—like mentoring, counseling, or alumni networks—remained out of reach for many. As a result, participants could still be left vulnerable after the initial opportunities ended. Persistent challenges like language barriers, financial strain, and digital divides continued to make things harder, especially for young people moving from rural areas.

Looking at migration outcomes, these PPPs made it easier for participants to get started in Germany, connecting them with employers and streamlining the process. Yet, most people ended up staying abroad instead of returning home. When movement did happen, it was usually in smaller, informal ways—like alumni offering advice or support online. Germany’s Skilled Immigration Act of 2023 encouraged people to settle long-term by making the path to residency and job security much clearer. In contrast, India’s systems for welcoming people back were often uncoordinated and ineffective. Overall, Indo–

German PPPs helped build skills and provided international exposure, linking Indian students and professionals with German industry in meaningful ways. Many returnees faced significant challenges: wage devaluation relative to their skills, lack of recognition for their German-acquired qualifications, and mismatches between their training and domestic labour market opportunities. These systemic obstacles discouraged return and often resulted in participants choosing to remain abroad.

Although grassroots and informal forms of brain circulation did emerge—through diaspora-led mentoring initiatives, online webinars, knowledge-sharing platforms, and entrepreneurial contributions—these were fragile, voluntary, and limited in scope.

Without institutional support or systemic scaffolding, they could not be scaled up to become reliable mechanisms of circulation. This finding complicates the binary view of brain drain versus brain circulation, suggesting instead that Indo–German PPPs generate hybrid outcomes in which institutional frameworks promote retention abroad, while circulation persists only in fragile and informal forms.

In summary, PPPs effectively create opportunities and expand access to international education and employment. They reduce barriers and foster mobility, but without stronger equity safeguards and reintegration policies, they risk reinforcing inequality and one-way migration flows. The evidence suggests a need to recalibrate PPPs so that they not only promote outward movement but also support return, reintegration, and sustainable skill circulation.

6.3 Key Conclusions

Drawing these findings together, several overarching conclusions can be advanced that directly address the two research questions and the broader debates on Indo–German Public–Private Partnerships (PPPs). Rather than treating them as isolated outcomes, these conclusions are presented as integrative insights that capture both the potential and the limits of PPPs as mechanisms for youth development and cross-border mobility.

Scholarships, vocational training modules, placements, and internship chances offered through PPPs tapped into possibilities that could otherwise have remained dormant for underprivileged youth. These interventions lowered traditional entry barriers to domestic and international labor markets with instantaneous access and opportunity benefits. Still, not everyone benefited equally. Deep-rooted inequalities around caste, class, gender, and geography continued to influence who could take advantage of these programs—and how much they gained from them. Middle-class university students often found PPP opportunities easily through campus placement cells or their schools, while rural or marginalized students usually depended on NGOs, friends, or just luck to find out about similar options. This uneven playing field shows how social structures continue to shape education, even when well-designed programs are available.

Importantly, the study found that technical training on its own wasn't enough for lasting success. Building social connections—through NGOs, peer networks, alumni groups, or diaspora communities—was just as important. PPPs helped remove some hurdles, but as they are now, they can't fully tackle the deep-rooted inequalities in India's education and job markets.

When it comes to brain circulation and migration, the study finds Indo–German PPPs somewhere between helping talent move back and forth, and losing skilled people for good. Germany’s Skilled Immigration Act of 2023 and similar policies have made it much easier for people to move, settle, and build careers there. However, the ways people return—like alumni mentoring or small online collaborations—are mostly informal and limited in scale. These efforts show goodwill and initiative, but without strong institutional support, they can’t make a big or lasting impact.

Germany actively encourages skilled migrants to settle for the long term, but India doesn’t have strong systems to welcome them back or make use of their new skills. It’s hard for returnees to come home: their foreign qualifications aren’t always recognized, there are few re-entry fellowships, and not many incentives to return. Because of these challenges, it’s often easier for people to stay in Germany, even if they want to return. This imbalance means that, in reality, most talent ends up leaving India for good, rather than circulating back and forth. In short, Indo–German PPPs do create opportunities for education, work, and upward mobility, but they can also end up reinforcing old inequalities and encouraging one-way migration. For these partnerships to truly support balanced and sustainable brain circulation, India needs to reform its reintegration policies and make PPPs more inclusive and connected. This study recommends a more joined-up, equity-focused approach so PPPs can move beyond basic training programs and become real engines of shared progress.

6.4 Implications

The findings of this study make important contributions at both theoretical and practical levels. By situating Indo–German PPPs within the broader debates on migration, employability, and transnational cooperation, the research extends scholarly understanding and offers concrete policy lessons.

6.4.1 Theoretical Implications

From a theoretical perspective, the study contributes to four distinct but interconnected domains: human capital theory, social capital theory, the brain drain versus brain circulation debate, and migration systems theory.

In relation to human capital theory, the findings confirm Becker’s (1993) proposition that education and training investments enhance individual productivity and employability.

Indo–German PPPs equipped participants with technical skills, German language training, and exposure to international labor markets, all of which expanded their career prospects. Yet, the evidence complicates the human capital model by demonstrating that structural inequalities mediate these returns. Caste, class, and rural–urban divides diluted the benefits for marginalized youth, revealing that investments in human capital cannot be divorced from the broader social contexts in which individuals are embedded. This research therefore refines human capital theory by emphasizing the uneven social embedding of human capital across structural lines of inequality.

The study also advances social capital theory, particularly the insights of Bourdieu (1986) and Putnam (2000). It was not technical skills alone but the networks in which participants were embedded that often determined their success. NGO involvement,

alumni mentoring, and diaspora networks provided the social capital that enabled smoother navigation of both Indian and German institutional landscapes. This underscores that social capital is not merely complementary to human capital but often decisive in shaping outcomes in transnational contexts. By foregrounding this dynamic, the study extends social capital theory to highlight its critical role in mediating global employability and migration.

In addressing the brain drain versus brain circulation debate, the study challenges binary framings. Previous literature often positioned mobility outcomes as either drain or circulation (Docquier & Rapoport, 2008; Saxenian, 2005). The Indo–German case therefore demonstrates that migration outcomes exist on a continuum: at one end, outward migration supported by strong institutional frameworks; at the other, fragile circulation sustained by grassroots activity. These hybrid outcomes are not anomalies but central features of today’s transnational mobility. The findings thereby refine migration systems theory by underscoring the central role of policy asymmetry between sending and receiving countries.

Germany's restrictive retention policies combined with India's weak reintegration policies created a structurally imbalanced system abroad. This awareness emphasizes the importance of integrating policy congruence into migration systems studies, hence expanding the framework to encompass beyond its traditional variables.

6.4.2 Practical Implications

Beyond theory, the study has significant practical implications for the different stakeholders in PPPs. For governments, the study emphasizes that policy coordination is a priority. India must prioritize foreign qualifications recognition systems, re-entry fellowships, and incentive mechanisms to attract returnees back. Germany must, on the other hand, balance its Skilled Immigration Act with bilateral agreements that secure circular migration on a permanent scale. Otherwise, PPPs will be skewed towards one-way flows. For NGOs, the research highlights their critical role in closing gaps in information and supporting disadvantaged young people. Rather than being used as ad hoc partners, NGOs need to be structurally integrated into PPP arrangements. By their ability to facilitate outreach, provide preparatory training, and provide psychosocial support, their impact has been critical in equity of access. For training institutions and universities, the report emphasizes the necessity of moving beyond technical training. Alumni association, career counseling, and cultural orientation are also important for long-term employability maintenance. These need to be institutionalized to maintain access to advice for PPP graduates once short-term programs cease. From the employer's perspective, the study highlights the imperatives of long-term involvement. Both Indian and German employers have much to gain from PPP-educated graduates, but their involvement cannot remain transactional recruitment. Recognition of qualifications earned in Germany, delivery of systematic mentoring, and cross-border cooperation would not only improve personal performance but also make conditions more favorable to brain circulation. Finally, for diaspora networks, the findings point to their untapped potential as vehicles of circulation. While grassroots initiatives such as alumni mentoring

and digital webinars already exist, they require institutional support to scale up.

Investment in digital diaspora platforms, job boards, and collaborative innovation hubs could transform voluntary efforts into structured systems of knowledge transfer.

6.5 Limitations of the Study

While this study provides valuable insights into the role of Indo–German PPPs in shaping educational and migration outcomes for marginalized youth, certain limitations should be acknowledged.

First, the research draws on a relatively small, qualitative sample ($n = 35$). While this size is appropriate for in-depth exploration, it necessarily limits the breadth of perspectives and reduces generalisability. The findings should therefore be read as indicative rather than representative of all marginalized youth in India.

Second, PPP initiatives are not homogeneous. Variations in program design, resources, and implementation mean that experiences differ across cases. This heterogeneity makes it difficult to claim uniform outcomes; instead, the findings highlight common patterns and tendencies that warrant further comparative investigation.

Third, the study adopts a cross-sectional design, capturing participants' experiences at a single point in time. This restricts the ability to evaluate long-term outcomes or evolving migration trajectories. Future longitudinal studies would be valuable for assessing the durability and transformative impact of PPP participation.

Taken together, these limitations do not undermine the contributions of the study but rather point to areas where future research can deepen and broaden understanding.

6.6 Recommendations for Future Research

The findings of this study have shed light on the role of Indo–German PPPs in shaping educational access, employability, and migration outcomes. At the same time, several gaps remain that present fruitful avenues for future research. Comparative studies are especially important. By systematically examining Indo–German PPPs alongside other bilateral arrangements—such as the Philippines–Japan healthcare partnership or China–U.S. innovation collaborations—scholars could better understand how variations in governance structures, labour market needs, and migration policies influence outcomes. Such cross-national analysis would help clarify whether the Indo–German case is unique or indicative of broader trends in international PPPs.

Future research should also incorporate large-scale quantitative surveys to complement the qualitative depth of this study. While interviews have provided valuable insights into the lived experiences of 35 participants, broader surveys could capture the scale and distribution of access, employability, and reintegration challenges across diverse PPP initiatives. A robust quantitative evidence base would not only strengthen generalisability but also allow for more precise policy recommendations grounded in measurable patterns (OECD, 2019).

Another priority is the longitudinal tracking of PPP alumni. A cross-sectional design, such as the one employed here, is necessarily limited in capturing the long-term trajectories of participants. By following cohorts over 10 to 15 years, future research could shed light on whether initial global exposure leads to sustainable upward mobility,

stagnation, or downward reintegration in the domestic labour market. Longitudinal analysis would also reveal whether informal circulation mechanisms mature into more structured, institutionalised flows over time.

Equally important is the need for intersectional analysis. While this study considered inequalities of caste, class, and geography, it lacked sufficient disaggregated data on gender, religion, and minority status. Drawing on Crenshaw's (1989) framework of intersectionality, future research should explore how overlapping disadvantages—or privileges—shape access to PPP opportunities and migration outcomes. This would help address silences in the current study and provide a more comprehensive picture of how systemic inequalities operate across multiple dimensions.

Another emerging area of interest concerns the role of digital diaspora platforms.

Findings from this study highlighted the importance of WhatsApp groups, webinars, and alumni-led online forums in sustaining fragile forms of circulation. Yet, these initiatives remain under-institutionalised and unevenly accessible, particularly for rural participants facing digital divides (Warschauer, 2004). Future research could examine how such platforms might be scaled, formalised, and integrated into policy frameworks to facilitate structured circulation of knowledge, skills, and resources between Germany and India.

Finally, future studies should focus on policy experimentation. Pilot programs that integrate re-entry fellowships, qualification recognition mechanisms, or structured diaspora engagement could be designed and evaluated to test their effectiveness in promoting circulation. Evidence from such experiments would provide concrete guidance

for policymakers in both India and Germany, enabling them to refine existing PPPs and create more balanced migration systems.

In summary, future research should adopt a comparative, quantitative, longitudinal, intersectional, digital, and policy-oriented approach. Only through such comprehensive inquiry can the potential of PPPs to deliver equitable educational access, employability, and sustainable migration outcomes be fully realised.

6.7 Final Message: Why This Study Matters

At its core, this study matters because it demonstrates both the promise and the peril of Indo–German PPPs as vehicles for transnational mobility and development. On the one hand, PPPs provide tangible opportunities for marginalized Indian youth who would otherwise remain excluded from global labor markets. While PPPs open up valuable chances for training, work, and international experience, they don’t always lead to fair outcomes. Without broader reforms, these programs can sometimes make existing inequalities worse and encourage more people to leave without coming back. Skills gained abroad aren’t always recognized at home, social connections are hard to maintain without strong support, and when policies don’t line up, the benefits mostly go to the countries that receive talent—not the ones that send it.

The implication is clear: if PPPs are going to drive real, fair development, they need to focus on helping people move back and forth, connect systems, and protect fairness. That means making NGOs true partners, creating policies that support people coming home, encouraging return migration, and building strong connections with diaspora

communities. These changes would help marginalized youth, but they'd also serve India's wider development needs and help Germany address its labor shortages in a more balanced way.

Finally, this research points to a hopeful path forward. PPPs, though mostly set up for one-way movement right now, can be redesigned to create more balanced results. By listening to the real-life stories of marginalized youth, it's clear that inclusion needs to be built into policies—not just assumed. These ideas matter not only for India and Germany, but for other countries using PPPs to tackle skills gaps and migration. At the end of the day, mobility should be guided by fairness, sustainability, and mutual benefit—otherwise, PPPs risk repeating the very problems they're supposed to solve.

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APPENDIX A
INFORMED CONSENT

TITLE OF STUDY: Public-Private-Partnerships in Expanding German Education and Career Access for Marginalized Indian Youth

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CONTACT DETAILS: 7330771377, asglobal37@gmail.com

PURPOSE OF STUDY:

You are being asked to take part in a research study. Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. Please read the following information carefully. Please ask the researcher if there is anything that is not clear or if you need more information.

This study aims to examine how Indo-German Public–Private Partnership (PPP) programs influence educational access and employment opportunities for marginalized Indian youth. It uses a qualitative approach to explore how factors like caste, gender, and rural background shape participants' vocational experiences in Germany. The research also investigates whether these programs support brain circulation through return migration and diaspora engagement. Overall, the study seeks to generate insights that can inform more inclusive and sustainable transnational PPP models.

STUDY PROCEDURES:

List all procedures, preferably in chronological order, which will be employed in the study. Point out any procedures that are considered experimental. Clearly explain technical and medical terminology using non-technical language. Explain all procedures using language that is appropriate for the expected reading level of participants.

State the amount of time required of participants per session, if applicable, and for the total duration of the study.

If audio taping, videotaping, or film procedures are going to be used, provide information about the use of these products.

RISKS

There are no major risks associated with this study. However, some participants may feel mild discomfort when answering questions about their background or experiences. You may skip any question or stop at any time without penalty.

BENEFITS

There will be no direct benefit to you for your participation in this study. However, we hope that the information obtained from this study may be much insightful for the margianlised india youth. ”

When applicable, disclose alternative procedures or courses of treatment, if any, which might be advantageous to participants

CONFIDENTIALITY

Your responses to this survey will be anonymous. Please do not write any identifying information on your survey. OR For the purposes of this research study, your comments will not be anonymous. Every effort will be made by the researcher to preserve your confidentiality including the following:

State measures taken to ensure confidentiality, such as those listed below:

- Assigning code names/numbers for participants that will be used on all research notes and documents
- Keeping notes, interview transcriptions, and any other identifying participant information in a locked file cabinet in the personal possession of the researcher.
- Participant data will be kept confidential except in cases where the researcher is legally obligated to report specific incidents. These incidents include, but may not be limited to, incidents of abuse and suicide risk.

CONTACT INFORMATION:

If you have questions at any time about this study, or you experience adverse effects as the result of participating in this study, you may contact the researcher whose contact information is provided on the first page. If you have questions regarding your rights as a research participant, or if problems arise which you do not feel you can discuss with the Primary Investigator, please contact me.

VOLUNTARY PARTICIPATION:

Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. If you decide to take part in this study, you will be asked to sign a consent form. After you sign the consent form, you are still free to withdraw at any time and without giving a reason. Withdrawing from this study will not affect the relationship

you have, if any, with the researcher. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed.

Note: Please delineate the "Consent " section of the Informed Consent Form by drawing

a line across the page (like the one above this paragraph). This delineation is important because the consent form grammar shifts from second person to first person, as shown in this example.

CONSENT

I have read and I understand the provided information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I understand that I will be given a copy of this consent form. I voluntarily agree to take part in this study.

Participant's signature Date

Investigator's signature Date

APPENDIX B
QUESTIONNAIRE

Section A: Access & Employability (RQ1)

1. Overall Experience with PPP Program

Can you describe your overall experience with the PPP program, especially in terms of access to vocational training?

- How did you first hear about the program?
- Were there any entry barriers due to your socio-economic or educational background?

2. Mentorship and Language Training

What types of mentorship or language training did you receive, and how did they help in your transition to the German education or job market?

- Who were your mentors and how often did you interact?
- Did the language training also help in social settings?

3. Challenges in Integration

Have you experienced any challenges related to discrimination, social integration, or workplace adjustment during or after your training in Germany?

- How did you address or overcome these challenges?
- Were there any formal or informal support systems that helped you?

Section B: Brain Drain vs Brain Circulation (RQ2)

4. Post-Program Decision

What factors influenced your decision to return to India or stay in Germany after completing the program?

- Were career opportunities or personal circumstances the main driver?
- Did the PPP program offer any support in making this decision?

5. Contribution Back to India

Has your participation in the PPP program enabled you to contribute back to India—for example, through skills, knowledge-sharing, mentorship, or networks?

- Have you mentored others or been involved in relevant initiatives?
- Is your international experience recognized or utilized in India?

Section C: Wrap-Up

6. Most Impactful Aspects

Looking back, what were the most impactful aspects of your PPP experience?

- If you could change one thing about the program, what would it be?

7. Advice to Future Participants

What advice would you give to marginalized Indian youth considering such PPP programs?