

INVISIBLE CAPITAL: ECONOMIC CONTRIBUTIONS OF MIGRANTS AND INTERNATIONAL STUDENTS IN TÜRKIYE AND POLAND

Muhammed KALAYCI¹, Marek SIKORA^{2*}

¹ Sakarya University of Applied Sciences, Kaynarca S.S. Vocational School; muhammedkalayci@subu.edu.tr, ORCID: 0000-0002-7728-4641

² Bydgoszcz University of Science and Technology, Faculty of Management; m.sikora@pbs.edu.pl, ORCID: 0000-0001-9773-8527

* Correspondence author

Purpose: The purpose of the paper is to examine the economic and social contributions of international students and migrants to local development in Türkiye and Poland, with a focus on explaining why large parts of these contributions remain unmeasured and “invisible” in public policy and statistical reporting.

Design/methodology/approach: The study employs a comparative and interdisciplinary approach integrating theories of human capital, social capital and diaspora economics. It uses secondary statistical data, institutional analysis, and desk research. The paper compares migration structures, labour market participation, entrepreneurship patterns and student mobility in both countries.

Findings: The findings show that international students and migrants generate significant value through consumption, entrepreneurship, labour market participation and human capital accumulation. However, their contributions remain partially invisible due to informal employment, temporary legal status and gaps in national indicators. The visibility of this “invisible capital” increases when countries provide clear legal pathways, language support, qualification recognition and strong local-level governance.

Research limitations/implications: The main limitation is restricted access to consistent data on informal employment and long-term integration outcomes. Future research could include micro-level surveys, firm-level productivity analysis or longitudinal studies tracking graduates’ trajectories.

Practical implications: The results provide guidance for policymakers on how to increase the economic visibility of migrants and students through legal reforms, formalisation measures, city-level integration platforms and entrepreneurship support schemes.

Social implications: The study highlights how better utilisation of migrant and student potential can enhance social cohesion, demographic renewal and innovation ecosystems while reducing negative public perceptions.

Originality/value: The paper proposes a unified framework linking the contributions of migrants and international students under the concept of “invisible capital”, offering a new analytical tool for understanding local development processes in two contrasting policy environments.

Keywords: migration, international students, invisible capital, Türkiye, Poland.

Category of the paper: Research paper.

1. Introduction

The acceleration of globalization in the 21st century has extended beyond flows of goods and capital to bring human mobility to an unprecedented scale (Ferreira Pantoja, 2023). This process has accelerated the cross-border circulation of knowledge, skills and cultural values, thus transforming the phenomenon of migration from being merely a movement of people into a strategic element in the contexts of economic development, human-capital accumulation and social renewal. This paradigm shift is manifested in the replacement of one-way, loss-oriented concepts such as “brain drain” with a discourse of “brain circulation”, grounded in mutual benefit (Docquier, Raport, 2012; OECD, 2020). In this new terrain, international student mobility and migrant flows play a key role in shaping the global talent pool and in the transformation of local economies (Jordan, 2020).

As countries endeavour through internationalization strategies in higher education to attract high-quality human capital, international students contribute not only through direct economic inflows – such as tuition fees, accommodation and living expenses – but also by forming a potential talent reservoir capable of strengthening innovation capacity and global networks over the long term. Meanwhile, whether driven by necessity or economic motives, migration movements reshape the demographic and sectoral structure of labour markets. Migrants not only help close critical labour-shortage gaps in low and medium-sized sectors but also bring dynamism to local economies through entrepreneurial activities, thereby contributing to employment and productivity growth (OECD, 2021; UNESCO, 2023).

Considering these global trends, Türkiye and Poland emerge as significant case studies – countries that have evolved from a “transit country” identity to a “destination country” position and now sit at the intersection of both flows. Türkiye, in the aftermath of the Syrian conflict since 2011, has become the country hosting the largest number of refugees globally by offering temporary protection to more than 3.5 million individuals. At the same time, via aggressive internationalization policies in higher education, it has become a regional education hub with over 300 000 international students as of 2023 (YÖK, 2023). Poland, for its part, accepted more than 1.5 million Ukrainian asylum-seekers following the Russia-Ukraine war that began in 2022, thereby becoming Europe’s largest host of asylum-seeker populations. In addition, through its affordable and quality English-language programmes, Poland has gained substantial attraction among international students from Eastern Europe and Central Asia (Duszczyk, 2023).

Yet, those central actors of this demographic transformation – international students and migrants – remain often “invisible” in local economies. Despite revitalising urban economies through micro-entrepreneurships, informal employment contributions, intercultural mediation and consumption expenditures, their multi-dimensional contributions are insufficiently represented in official statistics, development plans and public policy discourse.

This phenomenon, conceptualized as “invisible capital”, refers to the set of economic and social values generated by these groups which are difficult to measure, indirect and frequently unregistered (Duszczuk, Kaczmarczyk, 2022).

Underlying this invisibility are two structural reasons. The first is that a significant portion of these groups’ economic activities take place in unregistered sectors or under temporary/unstable legal statuses. The second, more critical reason, is that public policies often approach these groups not as an “opportunity” but from the perspective of social- welfare costs, labour- market pressures or burden on the public budget. Yet, the extant literature demonstrates how, under appropriate policy frameworks, migrants and international students can act as catalysts in the regeneration of local economies and enrichment of human- capital stocks (Dustmann et al., 2010; Chiswick, Miller, 2015).

This study thus aims to systematically render visible the aforementioned “invisible capital”. The cases of Türkiye and Poland provide a rich comparative analytical ground thanks to their different historical trajectories, institutional capacities and migration- management philosophies. The contrast between Türkiye’s focus on humanitarian security and social-policy orientation and Poland’s pragmatism, derived from its EU membership and its direct linking of migration to economic development and labour- market needs, offers a valuable opportunity for policy- transfer and effectiveness analysis (Brown et al., 2015).

On this basis, the key research questions addressed are as follows:

1. What types of contributions do international students and migrants make to local- economy components (employment, entrepreneurship, consumption, innovation) in Türkiye and Poland, and through which mechanisms do these contributions take place?
2. Why are these contributions not systematically rendered visible within national development policies and official discourse, and how does a cost- focused narrative prevail?
3. Which structural, legal and societal factors hinder the emergence of “invisible capital”, or conversely, support the conditions that make it visible?

In seeking answers to these questions, this study adopts an interdisciplinary perspective, integrating the human- capital theory from economics, the social- capital theory from sociology and the diaspora- economy approaches from international relations to propose a multi- dimensional analytical framework. The originality of the study lies in situating migration and international- student mobility not solely within social- integration or security paradigms, but as an inseparable human component of sustainable development.

In this regard, the study proposes a model that brings together migrant and student groups in the same analytical plane and investigates the synergy between them. Moreover, by comparing the experiences of the two countries, the study aims to contribute to the “policy- learning” process. Türkiye’s higher- education- oriented internationalization

strategies and Poland's rapid labour- market integration mechanisms – complementary as they are – may illuminate the way toward an ideal policy synthesis.

This study aims to make visible, through both quantitative and qualitative indicators, the role of international students and migrants in local development; to situate these contributions within a theoretical framework; and ultimately, to develop inclusive, sustainable and human- centred policy recommendations for both countries. In doing so, the “invisible capital” will transcend being merely a metaphor and instead be treated as a new explanatory variable in the literature of development economics and social policy.

2. Methods

This study employs a comparative, interdisciplinary research design to examine the invisible economic and social contributions of migrants and international students in Türkiye and Poland. The methodological approach integrates quantitative and qualitative data sources, institutional analysis, and theory-driven interpretation to uncover the mechanisms through which “invisible capital” is produced and the conditions under which it becomes visible.

2.1. Research design and approach

A cross-country comparative analysis was selected as the core methodological framework. Türkiye and Poland represent two distinct yet increasingly convergent migration regimes: Türkiye as a country shaped by humanitarian inflows combined with international-student mobility, and Poland as an EU member state characterized by economically oriented migration and rapid labour-market integration. These contrasting configurations enable the identification of structural, institutional, and policy factors that shape both the production and visibility of invisible capital.

The research draws on three complementary analytical perspectives:

1. Human-capital theory (Becker, 1964; Schultz, 1961), used to assess skill acquisition, educational mobility, and labour-market incorporation.
2. Social-capital theory (Putnam, 1993; Levitt, 1998), providing a lens for understanding networks, trust mechanisms, and transnational exchange.
3. Diaspora-economy and migration-development approaches (Dustmann et al., 2010; Chiswick, Miller, 2015), which help explain how migrants and students contribute to entrepreneurship, innovation and local economic regeneration.

These theoretical anchors guide the selection of indicators and the interpretation of findings.

The study relies on secondary quantitative and qualitative data from the following sources:

- Official national statistics: Göç İdaresi Başkanlığı (Presidency of Migration Management) (Türkiye), Statistics Poland, YÖK (Council of Higher Education), Ministry-level datasets.
- International datasets: OECD, UNESCO, ILO, World Bank.
- Scientific and policy literature: peer-reviewed articles, working papers and sectoral policy evaluations focusing on migration, labour markets, and higher-education mobility.
- Institutional and municipal reports: documentation from Turkish and Polish ministries, city-level integration programs (e.g., Welcome to Poland), and NGO reports.

These data sources were selected to capture both formal, measurable economic contributions and informal, under-reported activities that constitute the core of “invisible capital”.

2.2. Analytical methods and scope of the study

The analysis combines multiple methodological techniques:

1. Descriptive and comparative statistics. Cross-country comparison of labour-market participation, sector distribution, entrepreneurship patterns, international-student spending, and retention rates. Evidence was synthesized using national and international datasets.
2. Institutional and policy analysis. Systematic evaluation of migration and higher-education policies in Türkiye and Poland, with attention to legal pathways, labour-market regulations, credential-recognition mechanisms, and municipal integration frameworks.
3. Thematic and structural analysis. Qualitative examination of policy documents, program descriptions, and academic studies to identify recurring mechanisms of invisibility (e.g., informality, temporary status, administrative fragmentation).
4. Triangulation. Results from statistical indicators were cross-validated with qualitative findings and theoretical expectations to increase consistency, ensure robustness, and reduce bias inherent to single-method research.

The empirical scope includes:

- Labour-market participation and the formal/informal employment divide.
- Migrant and student entrepreneurship and firm creation.
- Direct expenditures of international students (tuition, housing, living costs).
- Human-capital accumulation (skills, qualifications, retention).
- Social-capital formation (networks, community integration, transnational ties).
- Local-governance arrangements (municipal programs, NGO partnerships).

3. Conceptual and theoretical framework

The growing scale of human mobility on a global level has emerged as a fundamental dynamic reshaping both the economic structures and socio-cultural fabric of contemporary societies. Within this mobility axis, international students and migrants stand out as two critical groups that embody the transnational circulation of human capital. The concept of an international student, as defined by UNESCO (2023), refers to individuals temporarily residing in a country other than their country of origin for the purpose of higher education and enrolled in a higher education institution. These individuals are not merely recipients of educational services; rather, they serve as active carriers of knowledge, skills, and cultural capital. According to OECD (2021) reports, international student mobility is framed globally as a “circulation of talent”, functioning as a mechanism that facilitates the internationalization of skilled labour supply and the transfer of human capital across countries. In this context, the potential of students to remain in the host country after graduation holds strategic significance for the internalization of human capital accumulation. However, the restrictive approaches adopted in many countries regarding post-graduation employment and residency policies often result in this potential being converted into “invisible capital”, in other words, being lost without being fully harnessed as a productive capacity (Chowdhury, 2023).

The concept of a migrant, as defined by the United Nations Department of Economic and Social Affairs (Hajro, Žilinskaitė, 2024), includes individuals residing in a country other than their country of birth for at least one year. Migrants may move for economic, political, environmental, or humanitarian reasons; thus, the nature of migration and the legal status of migrants can vary significantly across countries. The role of migrants in economic systems is not limited to increasing labour supply; they also play a vital role in entrepreneurship, consumption, innovation, and demographic balance. According to World Bank (2023) data, migrants help fill labour shortages in low- and middle-income sectors, ensuring production continuity and directly contributing to regional economies by increasing local demand for goods and services. Nevertheless, when migrants live under temporary protection or irregular status, their economic activities often occur in the informal sector, hindering the visibility of their contributions in official statistics. This reality is directly linked to what Anderson (2010) conceptualizes as “invisible labour,” a reference to the hidden labour mechanisms underpinning modern economies.

Although international students and migrants fall into different categories, both groups possess the potential to transform economic and social systems through the mobility of human capital. Within this framework, the core concept of this study – “invisible capital” – refers to the economic, social, and cultural value generated by these groups in ways that are not fully captured by statistical measurements. Invisible capital transcends traditional economic indicators and encompasses the value created through individuals’ knowledge, networks,

cultural assets, and channels of social interaction. The theoretical foundation of the concept is grounded in Becker's (1964) and Schultz's (1961) human capital theories, and Levitt's (1998) notion of "social remittances" (the transfer of ideas, behaviours and social capital by migrants to their communities). A common premise across these approaches is the argument that economic development depends not only on physical or financial capital but also on the human capacity to generate knowledge, build networks, and transmit culture.

Human capital theory posits that individuals' levels of education, skills, and experience play a decisive role in productivity and are key to addressing disparities in development across countries (Becker, 1964). Viewed from this perspective, international students can be seen as natural agents of the knowledge economy; the skills they acquire during their education enhance the host country's innovation capacity and create competitive advantages in international labour markets. Polish research confirms that improving the structure of human capital associated with the influx of educated people makes it possible to increase the competitiveness of local labour markets and stimulates modernisation processes (Wosiek, 2015). The social capital approach, as emphasized by Putnam (1993), argues that individuals improve economic performance indirectly through social networks, trust mechanisms, and shared norms. In this sense, the connections established between migrant and student communities and the local population can be viewed as "bridging social capital", which fosters intercultural understanding, knowledge exchange, and social cohesion.

Polish researcher (Łukaszewska-Bezulska, 2015) point out that migrants create unique "social bridges" that increase access to information, labour markets and institutional resources. In turn, Borgiasz-Stepaniuk (2018) shows that social capital is one of the key factors in the effectiveness of local development ecosystems, also in the context of transnational mobility.

Levitt's (1998) concept of social remittances highlights the transnational character of invisible capital. Migrants and international students transfer not only financial resources but also knowledge, values, and behavioural norms back to their countries of origin. This process, often referred to as "reverse brain circulation," affirms the multidirectional nature of international knowledge flows. In this regard, invisible capital describes a dynamic process through which knowledge and skills acquired in one country are incorporated into both local development and global reproduction cycles via transnational networks.

This conceptual framework considers international students and migrants not only as components of population movements but also as multilayered human actors in development processes. Invisible capital serves as a term to describe the immeasurable yet influential contributions these groups make to local innovation, entrepreneurship, employment, and social solidarity. Therefore, this study aims to systematically analyse the invisible dimensions of human capital accumulation at the intersection of international migration, education policies, and economic development (Djajić et al., 2019).

4. Results

International migration and student mobility have generated strategic transformations that profoundly affect the socio-economic structures of Türkiye and Poland. Although the two countries have historically operated under different migration regimes, they have recently confronted similar demographic and economic realities. Türkiye – alongside an influx of students from Asia and Africa – has become the country hosting the largest refugee population in the world; Poland, meanwhile, has emerged as one of the leading recipient countries for migrants within the European Union. In this context, both countries offer a basis for comparative analysis with respect to the mechanisms through which “invisible capital” is produced via migration and international student policies, as well as the conditions under which it can be rendered visible (Baş, Eti, 2020; Bryła, 2019).

4.1. Migration and international student dynamics in Türkiye

Türkiye’s migration experience displays a multilayered structure that historically intertwines its identities as both a “transit” and a “destination” country. The mass displacement triggered by the civil war in Syria in 2011 rapidly placed Türkiye at the centre of the global refugee regime. As of 2024, more than 3.5 million Syrians reside in Türkiye under temporary protection (Göç İdaresi Başkanlığı, 2024). This population has increased labour supply – particularly in labour-intensive sectors such as agriculture, construction, textiles, and services – thereby supporting continuity of production. However, because a substantial share of this contribution occurs within the informal economy, its economic effects are not fully captured in official statistics (Süygün, Kaplan, 2021). Table 1 presents a summary of the migrant and international student population in Türkiye, illustrating the scope of these “invisible” contributions.

Table 1.

Migrant and international student profile in Türkiye (2023)

Indicator	Number	Main countries of origin	Principal economic sectors
Syrians under temporary protection	3.5 million+	Syria	agriculture, construction, textiles, services
International students	301,000+	Syria, Iran, Azerbaijan, African countries	higher education, accommodation, retail
Registered migrant workers	1.2 million	Syria, Afghanistan, Pakistan	manufacturing, construction, services

Source: Göç İdaresi Başkanlığı (2024); YÖK, (2023).

Syrian-owned enterprises have forged extensive commercial networks in cities such as Gaziantep, Şanlıurfa, Mersin, and Istanbul, contributing significantly to both employment generation and the revitalization of regional trade. In Gaziantep in particular, more than 3000 firms established by Syrian entrepreneurs in the textiles and food industries have catalysed the emergence of new supply chains, backward and forward linkages, and ancillary service

markets, thereby expanding local labour demand and fostering sectoral diversification. These firms often fill gaps in product niches and cross-border intermediation – leveraging language skills, market knowledge, and transnational ties to source inputs and access customers across the Middle East. Nevertheless, only 35% of these businesses operate within the formal registry, which produces a substantial measurement gap: output, employment, and tax contributions are systematically underreported, and standard indicators fail to capture spillovers such as knowledge transfer, procurement multipliers, and neighbourhood-level business dynamism. The resulting invisibility does not merely hinder academic assessment; it also constrains evidence-based policy design around formalization, access to finance, and business-development services that could raise productivity and integration outcomes (Karaduman, Çoban, 2019).

The profile of international students in Türkiye is likewise markedly diverse. According to the Council of Higher Education (2023), of the more than 301,000 international students, approximately 42% originate from the Middle East, 28% from Central Asia, 15% from Africa, and 10% from the Balkans. This heterogeneity enriches campus ecologies and urban knowledge ecosystems, as students channel differentiated cultural capital, language competencies, and field-specific skills into host institutions and local labour markets through internships, part-time employment, and collaborative projects. Publicly funded schemes such as Türkiye Scholarships serve as important instruments for widening access and strengthening educational diplomacy, while also deepening alumni networks that can later facilitate trade, research collaboration, and technology transfer. However, the absence of robust institutional mechanisms to support post-graduation retention – spanning work-permit pathways, recognition of qualifications, and targeted career services – results in a pronounced loss of human capital. Potential contributors to innovation capacity and internationalization strategies often exit shortly after graduation, turning what could be a durable asset into “invisible capital”, i.e., value that is produced but not effectively embedded in local development trajectories (Samuk, 2019).

4.2. Migration and International Student Dynamics in Poland

Poland, long characterized by a relatively homogeneous social structure and low levels of immigration, has undergone a marked transformation since the mid-2010s, driven by both labour migration and refugee inflows. Following Russia’s invasion of Ukraine in 2022, Poland admitted more than 1.5 million Ukrainian asylum seekers, becoming the primary host of forcibly displaced persons in Europe. In response, the Polish Government enacted dedicated legislation granting Ukrainians expedited access to residence and work authorization, as well as to health care and education services (Poland’s Special Act of 12 March 2022 on Assistance to Citizens of Ukraine, which provided fast-track legal residence, work permits and access to public services for Ukrainian war refugees). This policy architecture – combining rapid legal regularization with access to core public goods – has facilitated swift labour-market entry,

mitigated skills bottlenecks in key sectors, and reduced the fiscal and social frictions typically associated with large, sudden inflows (Bryła, 2019).

Beyond emergency reception, Poland's migration regime increasingly aligns with a human-capital and competitiveness logic. Employers in manufacturing, construction, logistics, retail, ICT, and business services have leveraged the expanded supply of foreign workers to stabilize production cycles and support export-oriented growth. Simultaneously, international student mobility has emerged as a complementary channel of talent attraction. The proliferation of English-medium programs, comparatively affordable tuition, and the signalling benefits of degrees recognized across the European Union have positioned Poland as a significant academic hub in Eastern Europe. These developments have not only diversified the student body but also strengthened university-industry linkages, particularly in STEM fields and applied research, thereby contributing to regional innovation ecosystems (Kaczmarczyk et al., 2009).

Local governance has been pivotal in operationalizing integration. Municipalities such as Warsaw, Kraków, and Wrocław have institutionalized multi-stakeholder platforms – often under “Welcome to Poland” umbrellas – that deliver language instruction, career counselling, credential recognition guidance, and social orientation. Civil society organizations complement these services with legal aid, psychosocial support, and community-building initiatives. This multi-level governance model, anchored in city-level experimentation and partnership with NGOs and universities, has proven to be a critical success factor for migrants' socio-economic incorporation, enhancing employability, retention, and social cohesion outcomes (Fihel et al., 2012). Table 2 provides key statistics on the migrant and international student population in Poland, highlighting their main countries of origin and economic sectors.

Table 2.

Migrant and international student profile in Poland (2023)

Indicator	Number	Main countries of origin	Principal economic sectors
Ukrainian asylum seekers	1.5 million+	Ukraine	Manufacturing, services, ICT, retail
International students	105,000+	Ukraine, Belarus, India, Türkiye	Higher education, technology, R&D
Registered foreign workers	1.1 million	Ukraine, Belarus, India	Manufacturing, construction, logistics

Source: Statistics Poland (2023); OECD (2023).

Poland's international student profile exhibits distinctive characteristics shaped by geographic proximity and cultural affinities. Of the more than 105,000 international students, approximately 45% originate from Ukraine, 15% from Belarus, 12% from India, and 8% from Türkiye. The expansion of English-medium programs, the relative affordability of tuition, and the advantage of EU-wide recognition have collectively positioned Poland as a major academic hub in Eastern Europe (Komornicki et al., 2025).

An equally noteworthy feature of Poland's migration governance is the active role of local authorities and civil society organizations. In cities such as Warsaw, Kraków, and Wrocław, municipal "Welcome to Poland" programs encompass language training, career counselling, and social orientation services. This multilayered governance model has been a critical success factor in migrants' integration into the economic system (Szomburg et al., 2018).

4.3. Comparative analysis of economic contributions and their invisible dimensions

In the cases of Türkiye and Poland, the economic contributions of migrants and international students materialize along four principal channels: (I) labour-market participation, (II) the entrepreneurship ecosystem, (III) consumption expenditures, and (IV) the accumulation of human and social capital. While headline indicators tell part of the story, a substantial share of value creation remains "invisible" – i.e., produced through informal or indirect mechanisms that elude conventional statistics and policy dashboards.

The sectoral pattern underscores a higher concentration of migrant labour in low-wage, labour-intensive segments in Türkiye (agriculture, construction, textiles), whereas Poland shows greater absorption into services, manufacturing, and ICT. These structural differences condition wage trajectories, formalization prospects, and the scale of productivity spillovers (Figure 1).

Polish estimates confirm the scale of this phenomenon. Strzelecki et al. (2022) show that immigration from Ukraine accounted for an average of approximately 0.5 percentage points of annual GDP growth between 2013 and 2018, which represented as much as 13% of Poland's total cumulative economic growth during that period.

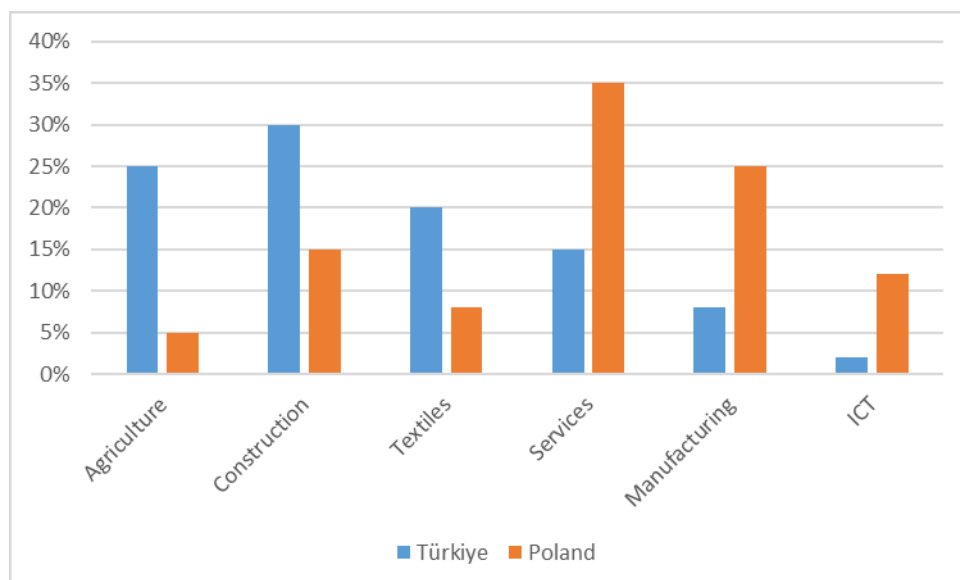


Figure 1. Employment distribution of migrants in Türkiye and Poland (%).

Source: Compiled from ILO (2023).

From a labour-market perspective, migrant employment in Türkiye is predominantly informal, while Poland exhibits a more institutionalized structure. Approximately 65% of Syrian migrants in Türkiye are informally employed, compared with 25% informality among Ukrainian migrants in Poland. This gap reflects divergent regulatory regimes and enforcement capacities. In Türkiye, informality depresses measured output, tax intake, and social-insurance contributions, thereby obscuring actual value added; it also constrains upskilling and firm-level productivity gains. In Poland, broader use of work permits, and municipal integration services has accelerated legal labour-market entry, improved compliance, and enabled more accurate accounting of contributions. The policy implication is clear: formalization pathways (e.g., streamlined permits, wage subsidies tied to registration, portable social insurance) are decisive in converting de facto contributions into de jure, countable growth.

Entrepreneurship patterns also diverge. In Türkiye, Syrian entrepreneurship is concentrated in traditional commerce and small-scale manufacturing, embedding migrants in local supply chains and neighbourhood retail. In Poland, Ukrainian entrepreneurs more frequently operate in technology and digital services, linking to higher-productivity segments and exportable services. While Türkiye counts ~15,000 registered Syrian-owned firms, Poland reports 25,000+ Ukrainian-owned businesses. Sectoral composition matters: digital-services ventures typically scale faster, generate knowledge spillovers, and require formal market interfaces (banking, IP, procurement), thus becoming visible in national accounts. By contrast, traditional micro-enterprises catalyse place-based revitalization and dense local procurement webs yet remain undercounted if registration and bookkeeping are limited. Targeted instruments – startup visas, incubators with bilingual mentoring, micro-credit coupled with formalization coaching – can raise productivity and the visibility of contributions in both contexts (Deniz, 2017; Yaşa, 2023; Awdziej et al., 2022).

Table 3.

Comparative analysis of the economic contributions of international students

Indicator	Türkiye	Poland
Annual tuition revenue	USD 1.2 billion	USD 750 million
Accommodation expenditures	USD 300 million	USD 200 million
Living expenses	USD 600 million	USD 400 million
Post-graduation retention rate	12%	35%
Labour-force participation rate	18%	42%

Source: OECD, Education at a Glance (2023); compiled from national data.

International students contribute sizable direct expenditures in both countries. Aggregate annual spending is estimated at USD 2.1 billion in Türkiye and USD 1.35 billion in Poland (tuition, accommodation, living costs). Yet the post-graduation retention gap (12% vs. 35%) implies that Poland converts a higher share of temporary inflows into long-term human capital. Retention amplifies downstream effects – startup formation, R&D participation, and firm-level internationalization – thereby shifting contributions from short-run demand stimulus to durable productivity gains.

Both countries host comparable potentials for human- and social-capital deepening, but institutional architectures shape realisation. As Wosiek (2015) emphasises, insufficient linkage between human capital and institutional structures leads to the emergence of ‘development inconsistencies’ that reduce long-term economic benefits. In the context of migration, this means that the lack of an appropriate institutional framework may prevent the full realisation of the educational and professional potential of migrants and foreign students. In Türkiye, much of the value flows through informal networks – peer mentoring, diaspora business ties, and community-based knowledge exchange – powerful but weakly measured. In Polish research, Isański (2015) points out that migrants act as "transnational brokers" who, thanks to their dual anchoring — in their country of origin and in their host country — contribute to the diffusion of knowledge and the growth of social capital on both sides of the border. In Poland, structured programs (municipal language courses, career guidance, credential-recognition support, university–industry co-ops) channel skills into the formal economy and make outcomes legible to policymakers. As Polish research shows, local language and mentoring programmes significantly increase the educational and professional opportunities of foreigners, and their absence results in long-term losses in terms of human capital utilisation (Krawczyk, 2023). Convergence is possible: Türkiye could upscale university-anchored co-op schemes and post-study work routes tied to shortage occupations, while Poland could strengthen pathways from temporary protection to stable status and promote entrepreneurship support beyond ICT into advanced manufacturing and green services (Holtgrave et al., 2019; Lajqi, Krasniqi, 2017).

Polish research (Isański, 2015) also shows that migrants act as transnational intermediaries whose social relations enable the flow of knowledge, resources and norms of behaviour between countries. This means that integration policies should strengthen not only economic competences, but also social capital infrastructure. The cases of Türkiye and Poland demonstrate that the visibility of migrants’ and international students’ economic contributions is directly linked to the institutional architectures, legal frameworks, and governance models adopted by host countries. In Türkiye, a centralized and short-term policy orientation has left much of these contributions “invisible”, whereas Poland’s multi-actor, long-horizon strategic planning has rendered them measurable and manageable. In this regard, making invisible capital visible is not solely a matter of administering migration as a demographic phenomenon; it is equally contingent on building institutional capacity that can unlock the economic potential of these groups. Both country experiences indicate that the integration of migrants and international students into economic systems becomes a meaningful development dynamic only within a multi-stakeholder, transparent, and long-term policy framework (Ulum, 2024; Baser, Feron, 2021; Oz, 2021).

5. Comparative analysis: policy effectiveness, opportunities, and the drivers that make invisible capital visible

Over the past decade, Türkiye and Poland have adopted markedly different policy paradigms to manage large-scale population movements (Samuk, 2019). This section undertakes a comparative assessment of those approaches and outlines a framework for integrating “invisible capital” into development processes by rendering it measurable, governable, and ultimately productive.

In broad terms, Türkiye’s regime has been centralized and humanitarian-security oriented, prioritizing short-term stabilization and emergency management. By contrast, Poland has increasingly coupled protection with economic integration and long-horizon planning, underpinned by multi-actor governance and EU-funded municipal programs. These choices shape not only the visibility of migrants’ and international students’ contributions, but also the quality of those contributions – i.e., whether they manifest primarily as short-run demand stimulus or as durable additions to human capital, productivity, and innovation capacity (Baş, Eti, 2020).

5.1. Comparative appraisal of policy paradigms

Before presenting Table 4, it is useful to foreground the institutional and political–economic logics that shape outcomes across Türkiye and Poland. Although both countries have confronted large, rapid inflows of migrants and a steady rise in international student numbers, their governance architectures diverge along three interrelated axes: (I) policy purpose and legal design – whether frameworks primarily stabilize humanitarian needs or proactively convert mobility into development assets; (II) implementation capacity and locus of action – whether integration is orchestrated centrally with limited municipal discretion or co-produced by cities, universities, employers, and civil society under multi-actor compacts; and (III) time horizon and measurability – whether interventions prioritize short-term accommodation or build durable pathways (formal employment, credential recognition, post-study work, entrepreneurship support) that generate auditable indicators in tax, social insurance, R&D, and firm creation. These axes condition not only sectoral allocation (e.g., concentration in low-wage, informal segments versus diffusion into manufacturing, ICT, and knowledge-intensive services) but also the visibility of contributions in official statistics and policy dashboards. Put differently, the same underlying stocks of human and social capital can yield very different development payoffs depending on legal certainty, administrative frictions, local program density, and public narratives around competition, burden, and solidarity. Table 4 synthesizes these contrasts, linking legal orientation to labour-market formality, international-student retention, municipal capacity, and the social cohesion climate that ultimately enables – or suppresses – the translation of “invisible capital” into measurable, investable growth.

Table 4.

Comparative overview of migration and international-student governance in Türkiye and Poland

Dimension	Türkiye	Poland
Legal Framework & Policy Orientation	temporary-protection centred; humanitarian-security axis	economic-integration oriented; pragmatic and labour-market driven
Employment Structure	high reliance on informal economy; concentration in agriculture, construction, and low-skill services	higher formal-employment share; spread across manufacturing, industry, and ICT
International-Student Integration	limited post-graduation job-search and work-permit pathways	flexible post-study work options and temporary residence permit for graduates
Local Governance Capacity	centralized management; constrained municipal budgets and initiative	active, multi-stakeholder municipal programs supported by EU funds
Public Perceptions & Social Cohesion	salience of economic competition and fiscal-burden narratives	solidarity rooted in historical/cultural proximity; parallel concerns over long-term integration

Source: Own work based on Göç İdaresi Başkanlığı (2024); YÖK (2023); ILO, (2023); Statistic Poland, (2023).

A more rigorous framing underscores that cross-national differences in the visibility of migrants' and international students' contributions are not epiphenomena of scale, but predictable outcomes of institutional design, administrative capacity, and policy time horizons. In comparative political-economy terms, Poland's regime resembles a developmental incorporation model: legal certainty (clear eligibility, time-bound processing, status portability) reduces transaction costs, raises the expected returns to formal participation, and thereby internalizes externalities (taxation, social insurance, innovation spillovers) that would otherwise remain latent. Türkiye's configuration, by contrast, approximates a humanitarian stabilization model: rapid reception and basic service delivery mitigate short-run welfare risks, yet the absence of robust post-entry pathways (credential recognition, post-study work, employer-linked permits, entrepreneurship interfaces) sustains informality equilibria in which much of the generated value is produced but not recorded. The consequence is a measurement problem (under-counted output, employment, and firm creation), a policy-learning problem (weak feedback loops for program improvement), and an investment problem (limited bankability of human-capital gains). Seen through this lens, "invisible capital" is not merely a metaphor; it is an analytically tractable stock whose conversion into measurable growth depends on legal predictability, municipal governance density, and the calibration of incentives at the firm, campus, and community levels (Kaczmarczyk et al., 2009).

5.2. Critical success factors for making invisible capital visible

Before presenting the comparative matrix, it is important to delineate the institutional logics that systematically condition whether migrants' and international students' contributions remain latent or become measurable assets. Although Türkiye and Poland have both confronted rapid inflows and rising student mobility, they diverge along three analytically salient axes: (I) the normative purpose and legal design of their regimes – humanitarian stabilization under temporary protection versus development-oriented incorporation that explicitly links status to

labour-market access and post-study transitions; (II) the locus and thickness of implementation, ranging from centrally orchestrated delivery with constrained municipal discretion to multi-actor ecosystems where cities, universities, employers, and civil society co-produce services, data, and outcomes; and (III) the time horizon and measurability of interventions, that is, whether policies prioritize short-term accommodation or build durable pathways (formal employment, credential recognition, entrepreneurship interfaces, and retention instruments) that yield auditable indicators in taxation, social insurance, firm creation, and R&D participation. Read through this lens, Table 4 does not merely juxtapose legal provisions; it maps causal chains linking regulatory certainty and local governance density to sectoral allocation, formalization rates, post-study retention, and the translation of “invisible capital” into investable, productivity-enhancing development stocks (Lajqi, Krasniqi, 2017).

1) Inclusive and Clear Legal Frameworks:

- Mechanism: predictable work- and residence-permit regimes reduce uncertainty, shrink informality, broaden the tax base, and increase social-insurance coverage.
- Practice contrast: Poland’s streamlined access to work authorization for Ukrainians accelerated labour-market registration and benefits uptake.
- Risks: protracted processing times and ad-hoc exemptions in Türkiye sustain informality traps, depress wages, and obscure true output.
- Policy levers: digital permitting, status portability, time-bound processing SLAs, and employer compliance incentives tied to registration.

2) Language Training and Professional Recognition:

- Mechanism: host-language proficiency and rapid credential recognition raise job matching quality, reduce overqualification, and speed productivity gains.
- Practice contrast: Poland’s accelerated recognition pathways and municipal language programs outpace Türkiye’s more fragmented provision.
- Policy levers: modular language curricula linked to occupations, fast-track licensing in shortage fields, micro-credentialing, and bridging courses.

3) Strength of Local Ecosystems and Multi-Stakeholder Governance:

- Mechanism: cities, universities, NGOs, and firms co-produce integration through services (orientation, counselling, legal aid), co-ops, and internships.
- Practice contrast: Poland’s “Welcome to Poland”-style municipal platforms institutionalize services, whereas Türkiye’s city-level initiatives face budget and mandate constraints.
- Policy levers: performance-based municipal grants, university–industry–city compacts, integrated referral systems, and shared data standards.

4) Strategic Integration into the Entrepreneurship Ecosystem:

- Mechanism: migrant/student entrepreneurship channels “invisible” energy into productive capital – firm creation, job growth, and innovation.

- Practice contrast: Türkiye: traditional commerce and small-scale manufacturing with dense local multipliers but lower measured productivity. Poland: higher presence in ICT/digital services with faster scaling and clearer statistical footprints.
- Policy levers: startup visas, bilingual incubators, micro-credit with formalization coaching, public procurement access, IP support, and export readiness.

5) Social Acceptance and Inclusion:

- Mechanism: positive narratives and shared public spaces reduce discrimination costs, raise employability, and stabilize retention.
- Practice contrast: Türkiye faces salient “competition/burden” framings; Poland benefits from proximity-based solidarity yet must manage long-term integration concerns.
- Policy levers: evidence-based communication, intercultural dialogue initiatives, neighbourhood hubs, and media partnerships to normalize success stories.

6. Discussion

This section synthesizes the study’s findings within a systematic policy-design logic and proposes a feasible, evidence-based framework for structurally rendering “invisible capital” visible. The proposed approach treats problem definition, instrument selection, governance architecture, financing models, and monitoring–evaluation mechanisms as an integrated continuum rather than discrete, sequential steps. In doing so, it aligns diagnostic categories (e.g., informality traps, credential underutilization, low post-study retention) with targeted interventions (streamlined status pathways, accelerated recognition, entrepreneurship pipelines), embeds these interventions in an enabling governance ecology (city–university–employer–civil society compacts), and links them to sustainable funding arrangements (blended public–EU/IFI finance, outcome-based grants) and auditable indicators (formalization rates, credential utilization, firm survival, R&D participation, retention).

Crucially, the framework preserves the institutional specificities and relative advantages of Türkiye and Poland while elevating common mechanisms that enable reciprocal learning and responsible policy transfer. In practice, this means calibrating reforms to each country’s legal traditions and administrative capacities, yet standardizing core functions – permit processing, language and career services, credentialing, entrepreneurship support, and data collaboratives – so that contributions by migrants and international students shift from latent, under-measured spillovers to trackable, investable assets within local development strategies (Ulum, 2024).

The core challenge may be described as a “paradox of invisibility”. Although international students and migrants generate substantial economic and social value across local employment, entrepreneurship, consumption, and innovation ecosystems, the administrative traces of these

contributions remain fragmented, indirect, and distorted by information asymmetries. Consequently, these values are underrepresented in policy deliberations and underweighted in development planning. The solution requires an integrated, evidence-based policy design that simultaneously reduces informality, accelerates skills translation and matching, and embeds contributions within measurable, auditable systems of governance and finance (Baser, Feron, 2021).

For Türkiye, immediate priorities involve (I) structuring post-graduation transition permits to convert temporary educational inflows into durable human-capital stocks, and (II) broadening the tax base by formalizing significant portions of migrant labour, thus improving revenue buoyancy and social-insurance coverage. For Poland, priorities centre on (I) further accelerating the recognition of foreign diplomas and professional credentials, and (II) diffusing municipal integration capacity beyond leading metropolitan areas to ensure territorial equity in outcomes. In both contexts, the university–municipality–private-sector triad functions as a decisive interface: it orchestrates first-job matching, incubates entrepreneurship, and provides platforms for data integration and continuous improvement.

Implementation should proceed through sequenced, realistic phases that balance speed with institutional learning. In the short term (0–12 months), legal and administrative enablers – post-study work routes, startup/innovator visas, modular “Welcome & Work” programs, and interoperable data protocols – should be piloted in priority provinces and universities. In the medium term (12–36 months), growth instruments – seed and co-investment funds, bilingual accelerators, and credential-recognition “fast lanes” – should scale, while inter-municipal learning networks are formalized. In the long term (36+ months), successful pilots should be codified in statute, with internationally comparable indicators reported on a regular schedule to lock in accountability and policy durability.

Financing must be tailored to institutional capacity. In Türkiye, central-budget appropriations can be blended with KOSGEB/TÜBİTAK instruments and regional development-agency funds. In Poland, the European Social Fund+ (ESF+), the Asylum, Migration and Integration Fund (AMIF), regional agencies, and municipal consortia can serve as anchors. Across both settings, results-based instruments – including outcome-linked grants and social impact bonds – can be piloted to align incentives with measurable formalization, placement, and firm-survival outcomes. Table 5 details the policy package by domain, identifying country-specific levers alongside shared mechanisms that enable reciprocal learning and responsible policy transfer (KOSGEB, 2025; European Social Fund+, 2022; FI-Compass, 2024).

The proposed integrated policy package is expected to generate a series of positive socio-economic effects in a sequenced manner. In the short term, direct economic outputs and income effects will materialize through improved job matching and entrepreneurship. In the medium term, declining informality and a broadened tax base will ease pressures on public finances and strengthen fiscal sustainability. In the long term, the nourishment of human and social capital

stocks will enhance local innovation capacity, economic diversification, and global competitiveness.

Table 5.

Cross-country policy package: equivalences and common mechanisms

Policy domain	Türkiye - priority levers	Poland - priority levers	Common mechanisms (for policy transfer)
Legal pathways & status design	Post-study work permits tied to shortage occupations; status portability for employer changes; digital one-stop portals	Further streamlining of temporary→ stable status transitions; codified timelines for renewals; expanded grounds for graduate residence	Time-bound service-level agreements; API-based inter-agency workflows; transparency dashboards for permit pipelines
labour-market formalization	Targeted inspections paired with compliance incentives; portable social insurance; wage subsidies conditional on registration	Continued uptake of registered employment for protection holders; sectoral compacts in manufacturing/ICT/logistics	“Formalization for benefits” packages; contributory records portability; employer recognition schemes
Credential recognition & language	Occupation-linked language modules; recognition of prior learning (RPL); professional boards with fast-track tracks	Maintain accelerated recognition in shortage fields; expand bridging programs to mid-sized cities	Modular B1/B2 curricula; standardized rubrics for equivalence, hybrid/online bridging with supervised practice
International-student retention	Graduate transition routes; campus-based career services; co-op and internship mandates in shortage sectors	Extension of flexible post-study permits; stronger university–industry placement pipelines	12/36-month retention targets; alumni-network mobilization; employer-linked job-search visas
Entrepreneurship & firm creation	Bilingual incubators; micro-credit with formalization coaching; procurement access for migrant-owned SMEs	Innovation vouchers; export-readiness mentoring for digital services; IP and spin-off support	Startup/innovator visas; co-investment funds; survival-rate milestones (12/36 months)
Local governance capacity	Outcome-based municipal grants; university–city–NGO compacts in pilot provinces	Scaling “Welcome Hub” models; multi-city collaboratives for shared services	One-stop integration hubs; unified referral systems; quarterly learning reviews
Data, monitoring & evaluation	Unified migrant/student registries; linkages to tax/SI records; open indicator dashboards	Privacy-preserving data collaboratives across ministries and cities; standardized reporting	Core metrics stack: formalization rate, credential utilization, placements, retention, R&D participation, firm survival
Financing models	Central budget + KOSGEB/TÜBİTAK + development agencies; pilot social impact bonds	ESF+, AMIF, regional funds, municipal co-financing; outcome-linked grants	Blended finance with outcomes triggers; multi-year envelopes tied to indicator trajectories
Equity & safeguards	Gender-responsive programming; childcare supports; legal-aid access	Anti-discrimination enforcement; regional access parity	Disaggregated reporting (gender/age/status); grievance redress; periodic program audits
Risk management	Bureaucratic backlog; politicization; informality persistence	Administrative saturation; regional disparities; dependence on a single origin country	Buffer capacity (temporary staffing); surge protocols; diversified origin strategies; independent evaluation

Source: Authors' own compilation and policy proposal, informed by the research findings and sources cited in this work.

A robust monitoring-evaluation (M&E) architecture is indispensable for ensuring both the effectiveness and durability of the policy package. In line with best practice, indicators should be stratified into outputs, outcomes, and impacts, each aligned with explicit causal links and time horizons. Output indicators capture short-term implementation fidelity and service delivery – such as permit processing times, completion of language or credentialing modules, utilization of municipal “Welcome Hub” services, and the coverage of data linkages between registries and social insurance systems. Outcome indicators reflect medium-term behavioural and systemic change, including the formalization rate of migrant employment, wage-to-qualification congruence, 6-12-month job placement and retention, 12/36-month post-study stay rates, throughput of credential recognition, and startup survival with associated revenue growth. Impact indicators, by contrast, track long-run structural transformation and social returns: shifts toward higher-productivity sectors; increases in tax and social-insurance contributions; participation in R&D and patenting; export intensity among migrant- or graduate-founded firms; neighbourhood business dynamism; and attitudinal change and social-cohesion indices (UNESCO, 2019; OECD, 2022).

Credible attribution requires comparative, quasi-experimental designs that constitute the methodological backbone of evaluation. Difference-in-differences models should benchmark treated cities, sectors, or cohorts against comparable controls before and after policy rollout, incorporating unit and time fixed effects, cluster-robust standard errors, and pre-trend diagnostics. Interrupted time-series or trend-break designs can test whether policy introduction is associated with statistically significant level or slope changes in key indicators once seasonality and macroeconomic shocks are controlled. Complementary cost-effectiveness and cost-benefit analyses should relate incremental public outlays to quantifiable gains – such as additional formal jobs per unit of expenditure, tax or social-insurance yield per beneficiary, and the net present value of retained human capital – supported by sensitivity analyses on discount rates and program uptake. Where randomization is infeasible, propensity-score or machine-learning matching can improve balance, especially for graduate-retention and entrepreneurship interventions. Heterogeneity analysis, disaggregated by gender, age, legal status, region, and sector, is essential for detecting distributional trade-offs and informing mid-course corrections (Kusek, Rist, 2004; Funnel, Rogers, 2011).

High-integrity results depend on interoperable data and clear governance. Linked administrative datasets – covering permits, education records, tax and social-insurance contributions, and business registries – should be integrated via privacy-preserving record-linkage protocols and formal data-sharing agreements. Program management information systems need standardized inputs, outputs, timestamps, and geo-tags to support identification strategies in difference-in-differences and interrupted time-series models. Periodic survey modules for employers and beneficiaries can capture skills utilization, experiences of discrimination, and social-cohesion outcomes, ideally harmonized with national labour-force surveys. Public-facing dashboards that report headline indicators on a quarterly basis, combined

with controlled microdata access, enhance accountability and enable external replication (Culhane et al., 2017).

Accountability instruments should institutionalize methodological rigor and transparency. Independent methodological notes ought to pre-register identification strategies, model specifications, and primary and secondary endpoints, accompanied by codebooks and replication files. Annual spending–impact reports should reconcile budgets with realized outputs, outcomes, and monetized benefits, provide explanations for observed variances, and set out concrete remedial actions. Periodic third-party audits of data quality and methods, together with scholarly peer review of flagship evaluations, further strengthen credibility and policy salience (Zhang, Stevens, 2012).

Table 6.
Monitoring and evaluation indicator set

Indicator type	Example indicators	Analytical value and interpretation
Output indicators (0-12 months)	Number of post-graduation transition permits issued; employment transition rates of graduates at months 6 and 12; completion rates of language/orientation modules; number of newly registered firms	Provides early signals on implementation capacity, inclusiveness of access to services, and the operational effectiveness of policy instruments.
Outcome indicators (12-36 months)	Reduction in informal employment (percentage points); average tax contribution per migrant/international student; 12-month survival rate of newly established firms; average time-to-job placement (days)	Supplies quantitative evidence on economic incorporation, expansion of the tax base, and improvements in labour-market efficiency.
Impact indicators (36+ months)	Changes in human and social capital indices; price elasticities for housing and staple foods; social acceptance and social-cohesion index	Profiles medium- to long-term structural transformation in welfare, market equilibria, and the social fabric.

Source: Authors' own compilation and policy proposal, informed by the research findings and sources cited in this work.

The indicator set renders the causal chain of implementation traceable across short- (output), medium- (outcome), and long-term (impact) layers, thereby enabling a rigorous test of the operability of policy instruments and their capacity to convert value into productive capital. Output metrics provide early warnings on implementation capacity and inclusiveness; outcome metrics make shifts in formalization, tax-base broadening, and labour-market efficiency quantitatively visible; impact metrics profile structural transformation in human/social-capital accumulation and market equilibria, supplying evidence for policy continuity. This tripartite architecture supports comparative impact assessment (DiD/ITS) and feeds learning cycles, thereby rationalizing scale-up and course-correction decisions. Regional studies confirm that increased diversity and the influx of foreign workers promote the modernisation of economic structures, particularly in sectors with a growing share of knowledge (Kikoria, Sikora, Sanikidze, 2023).

It is also important to recognise potential risks and trade-offs associated with implementation. According to analyses contained in a nationwide report on migration (Polish Economic Institute, 2023), social tensions and concerns about competition in the labour market

most often arise in low-paid sectors and in areas with weaker public service infrastructure, which requires particularly precise compensatory measures. These include potential tensions in public perception, possible price pressures in housing markets, and concerns about “displacement” among native workers. However, when such risks are managed proactively through indicator-driven monitoring systems and balanced with active labour-market policies aimed at upskilling the native workforce, a transition from a “problem management” paradigm to an “opportunity management” paradigm becomes feasible.

7. Conclusions

This study has examined how international students and migrants contribute to local development in Türkiye and Poland through mechanisms that are often underrecognized in official statistics. Despite differing institutional and legal contexts, both countries face a common challenge: converting “invisible capital” – skills, entrepreneurship, and knowledge flows – into measurable, formal, and policy-relevant assets.

The findings underscore that this conversion depends not only on legal pathways and labour market access, but also on robust governance frameworks, inter-institutional coordination, and data systems that make such contributions visible. While Türkiye must prioritize formalization and post-study retention, Poland's challenge lies in scaling its successful models beyond major urban centres.

Strategic, data-informed migration and education policies can transform short-term inflows into long-term productivity gains. Making invisible contributions visible is not just a matter of inclusion—it is a condition for sustainable, competitive, and cohesive local economies.

References

1. Anderson, B. (2010). *Doing the dirty work?: The global politics of domestic labour*. Palgrave Macmillan.
2. Awdziej, M., Tkaczyk, J. (Eds.) (2022). *Extending Boundaries: The Impact of the Digital World on Consumers and Marketing*. Kozminski University.
3. Baş, H., Eti, S. (2020). Türkiye’de Uluslararası Öğrencilerin İstihdamı: Hukuki Boyut ve Koşullara Dair Bir Araştırma. *Sosyal Politika Çalışmaları Dergisi*, Vol. 20, Iss. 46, pp. 105-132. <https://doi.org/10.21560/spcd.v20i54504.538022>

4. Baser, B., Féron, É. (2021). Host state reactions to home state diaspora engagement policies: Rethinking state sovereignty and limits of diaspora governance. *Global Networks*, Vol. 22, Iss. 2, pp. 226-241. <https://doi.org/10.1111/glob.12341>
5. Becker, G.S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. University of Chicago Press.
6. Borgiasz-Stepaniuk, M. (2018). Kapitał społeczny i jego wpływ na efektywność rozwoju regionu na przykładzie Małopolski. *Przedsiębiorczość – Edukacja*, Vol. 14, pp. 49-61. <http://dx.doi.org/10.24917/20833296.14.4>
7. Brown, P., Cheung, S.Y., Lauder, H. (2015). Beyond a human capital approach to education and the labour market: The case for industrial policy. In: D. Bailey, K. Cowling, P. Tomlinson (Eds.), *New perspectives on industrial policy for a modern Britain* (Chapter 11). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780198706205.003.0011>
8. Bryła, P. (2019). International student mobility and subsequent migration: The case of Poland. *Studies in Higher Education*, Vol. 44, Iss. 8, pp. 1386-1399.
9. Chiswick, B.R., Miller, P.W. (2015). International migration and the economics of language. In: B.R. Chiswick, P.W. Miller (Eds.), *Handbook of the economics of international migration*, Vol. 1, pp. 211-269. <https://doi.org/10.1016/B978-0-444-53764-5.00005-0>
10. Chowdhury, S.R. (2023). Emigration and Back-Door Brain Drain: Do Restrictive Immigration Policies Make Unequals Worse Off? *Arthaniti: Journal of Economic Theory and Practice*, Vol. 24, Iss. 2, pp. 220-237. <https://doi.org/10.1177/09767479231188292>
11. Deniz, D. (2017). Türkiye'deki Suriyeli mülteci girişimcilerin oluşum süreci ve özellikleri. *Yayınlanmamış Yüksek Lisans Tezi*. Antakya: Hatay Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü.
12. Djajić, S., Docquier, F., Michael, M.S. (2019). Optimal education policy and human capital accumulation in the context of brain drain. *Journal of Demographic Economics*, Vol. 85, Iss. 4, pp. 271-303. doi:10.1017/dem.2019.10
13. Docquier, F., Rapoport, H. (2012). Globalization, brain drain, and development. *Journal of Economic Literature*, Vol. 50, Iss. 3, pp. 681-730. <https://doi.org/10.1257/jel.50.3.681>
14. Dustmann, C., Frattini, T., Rosso, A. (2010). The effect of emigration from Poland on Polish wages. *Scandinavian Journal of Economics*, Vol. 114, Iss. 4, pp. 1342-1366. <https://doi.org/10.1111/j.1467-9442.2012.01717.x>
15. Duszczyk, M., Górny, A., Kaczmarczyk, P., Kubisiak, A. (2023). War refugees from Ukraine in Poland – One year after the Russian aggression: Socioeconomic consequences and challenges. *Regional Science Policy & Practice*, Vol. 15, Iss. 1, pp. 181-200. <https://doi.org/10.1111/rsp3.12642>
16. Duszczyk, M., Kaczmarczyk, P. (2022). The war in Ukraine and migration to Poland: Outlook and challenges. *Intereconomics*, Vol. 57, Iss. 3, pp. 164-170. <https://doi.org/10.1007/s10272-022-1045-0>

17. European Social Fund+ (2022). *ESF+ in Poland*. European Commission. <https://european-social-fund-plus.ec.europa.eu/en/support-your-country/esf-poland>
18. Ferreira Pantoja, F. (2023). Globalization and Its Challenges. *Revista Género E Interdisciplinaridade, Vol. 4, Iss. 4*, pp. 83-91. <https://doi.org/10.51249/gei.v4i04.1455>
19. FI-Compass (2024). *Asylum, Migration and Integration Fund: Financial instruments factsheet*. European Commission & European Investment Bank. https://www.fi-compass.eu/sites/default/files/publications/AMIF_factsheet_financial%20instruments_web.pdf
20. Fihel, A., Kaczmarczyk, P., Stefańska, R. (2012). Recent trends in international migration in Poland. *Central and Eastern European Migration Review, Vol. 1, Iss. 1*, pp. 69-90.
21. Göç İdaresi Başkanlığı (2024). İçişleri Bakanı Ali Yerlikaya: “Gönüllü Geri Dönüşler İnsani Değerlere Uygun Bir Şekilde Yürütülmektedir”. *Göç İdaresi Başkanlığı*. <https://goc.gov.tr/icisleri-bakani-ali-yerlikaya-gonullu-geri-donusler-insani-degerlere-uygun-bir-sekilde-yurutulmektedi-merkezicerik>
22. Hajro, A., Žilinskaitė, M. (2024). Migrants and migration. In: C.G. Asmussen, N. Hashai, D. Minbaeva (Eds.), *Encyclopedia of international strategic management* (pp. 285-287). Edward Elgar Publishing. <https://doi.org/10.4337/9781800884045.ch72>
23. Holtgrave, M., Zamantili Nayir, D., Nienaber, A.-M., Schewe, G. (2019). Knowledge comes but wisdom lingers! Learning orientation as the decisive factor for translating social capital into organisational innovativeness and performance in Turkey. *European Journal of International Management, Vol. 13, Iss. 2*, pp. 127-158. <https://doi.org/10.1504/EJIM.2019.098142>
24. Isański, J. (2015). *Migracje i transfery kapitału społecznego*. Wydawnictwo Naukowe UAM.
25. Jordan, B. (2020). Mobility and Migration. In: *Authoritarianism and How to Counter It*. Cham: Palgrave Pivot. https://doi.org/10.1007/978-3-030-17211-4_4
26. Kaczmarczyk, P., Fihel, A., Stefańska, R. (2009). *Recent trends in international migration in Poland*. Warszawa: Uniwersytet Warszawski.
27. Karaduman, H.A., Çoban, E. (2019). Brain Drain in Turkey: an Investigation on The Leading Motives of Skilled Migration. *Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi, Vol. 6, Iss. 7*, pp. 322-339.
28. Kikoria, J., Sikora, M., Sanikidze, G. (2023). Entering the Labour Market: An Empirical Analysis in Poland and Georgia. *Scientific Papers of Silesian University of Technology – Organization & Management Series, Vol. 173*, pp. 315-328, <http://dx.doi.org/10.29119/1641-3466.2023.173.20>
29. Komornicki, T., Szejgiec-Kolenda, B., Czapiewski, K. (2025). Poland as an emigration and an immigration country—dynamics of change from the local and individual perspective. *Journal of Contemporary European Studies, Vol. 33, Iss. 1*, pp. 179-197.

30. KOSGEB (2025). Desteklenen sektörler nelerdir? T.C. Küçük ve Orta Ölçekli İşletmeleri Geliştirme ve Destekleme İdaresi Başkanlığı. <https://www.kosgeb.gov.tr/site/tr/baglanti/DesteklenenSektor>.
31. Krawczyk, M. (2023). Edukacja i integracja uczniów cudzoziemskich w Polsce: wyzwania instytucjonalne i społeczne. *Uniwersytet Gdański Journal, Vol. 3, Iss. 1*, pp. 45-62.
32. Lajqi, S., Krasniqi, B.A. (2017). Entrepreneurial growth aspirations in challenging environment: The role of institutional quality, human and social capital. *Strategic Change, Vol. 26, Iss. 4*, pp. 385-401. <https://doi.org/10.1002/jsc.2139>
33. Levitt, P. (1998). Social remittances: Migration driven local-level forms of cultural diffusion. *International Migration Review, Vol. 32, Iss. 4*, 926-948.
34. Łukaszewska-Bezulska, J. (2015). Migracje zarobkowe a kapitał społeczny na pograniczach kulturowych na przykładzie Opolszczyzny i Podlasia. *Studia Migracyjne – Przegląd Polonijny, z. 2(156)*, pp. 81-96.
35. OECD (2020). *International Migration Outlook 2020*. OECD Publishing. <https://doi.org/10.1787/ec98f531-en>
36. OECD (2021). *Talent attractiveness and international students: Policy challenges and opportunities*. OECD Publishing. <https://doi.org/10.1787/ec98f531-en>
37. OECD (2022). *International migration outlook 2022*. Organisation for Economic Co-operation and Development. <https://doi.org/10.1787/29f23e9d-en>
38. Oz, Y. (2021). The emergence of Turkey as a regional hub for international students: A macro-level analysis. In: A.W. Wiseman (Ed.), *Annual review of comparative and international education 2020, Vol. 40*. Emerald Publishing. <https://doi.org/10.1108/S1479-367920210000040017>
39. Polski Instytut Ekonomiczny (2023). *Migracje a rozwój społeczno-gospodarczy Polski: Raport końcowy*. Warszawa.
40. Putnam, R.D. (1993). *Making democracy work: Civic traditions in modern Italy*. Princeton University Press.
41. Samuk, S. (2019). European Union Migration Policies for the Highly Skilled: A Critical Appraisal. *Aydın İktisat Fakültesi Dergisi, Vol. 4, Iss. 1*, pp. 1-20.
42. Schultz, T.W. (1961). Investment in human capital. *The American Economic Review, Vol. 51, Iss. 1*, pp. 1-17.
43. Strzelecki, P., Growiec, J., Wyszynski, R. (2025). *Wkład imigrantów do polskiego wzrostu gospodarczego w latach 2014-2023*. Materiały z V Kongresu Statystyki Polskiej, GUS.
44. Süygün, M.S., Kaplan, F. (2021). Uluslararası Öğrencilerle Uluslararası Ticaret. *Gümrük ve Ticaret Dergisi, Vol. 8, Iss. 25*, pp. 25-35.
45. Ulum, Ömer, G. (2024). Kitap İncelemesi: OECD/ILO (2018) Tarafından Hazırlanan “Göçmenlerin Gelişmekte Olan Ülkelerin Ekonomilerine Katkıları” Kitabının 5C Yaklaşımıyla İncelenmesi. *Göç Dergisi, Vol. 11, Iss. 2*, pp. 147-158. <https://doi.org/10.33182/gd.v11i2.891>

46. UNESCO (2019). *Global Convention on the Recognition of Qualifications concerning Higher Education*. United Nations Educational, Scientific and Cultural Organization. <https://unesdoc.unesco.org/ark:/48223/pf0000372761>
47. UNESCO (2023). *Global education monitoring report 2023: Migration, displacement and education*. UNESCO Publishing.
48. Welcome to Poland (2025). *Welcome to Poland*. Retrieved from: <https://welcometopoland.co/>, November 11, 2025.
49. World Bank (2023). *World development report 2023: Migrants, refugees, and societies*. World Bank Publications.
50. Wosiek, M. (2015). Niespójności w rozwoju kapitału ludzkiego w Polsce – spojrzenie przez pryzmat koncepcji kapitału intelektualnego. Część II: Kapitał ludzki a kapitał strukturalny rozwoju. *Nierówności Społeczne a Wzrost Gospodarczy*, Vol. 42, Iss. 2, pp. 327-342.
51. Yaşa, P. (2023). *Ükselen Değer Dijital Girişimcilik: Seçilmiş Avrupa Birliği Ülkeleri ve Türkiye Karşılaştırmasi*. Master's thesis. Turkey: Bursa Uludağ University.
52. Yükseköğretim Kurulu (YÖK) (2023). *Türkiye'de Uluslararası Öğrenciler Raporu 2023*. Ankara: YÖK Yayınları.