

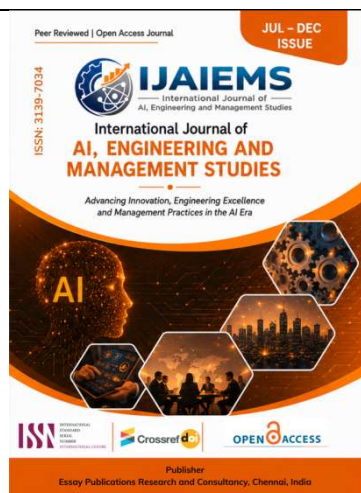
## Digital Nomad Visas and Their Macroeconomic Effects on Emerging Economies

Rajesh Shahi 

School of Business Management, Noida International University, Greater Noida, India.

Email: [ty88sm@gmail.com](mailto:ty88sm@gmail.com)

ORCID ID: <https://orcid.org/0009-0003-9125-1277>



### Abstract

This study explores macroeconomic impacts of digital nomad visas (DNV) in emerging markets and looks into the potential for creating novel economic growth through digital nomads, as well as the strengthening of the existing inequalities. This study uses a panel data econometric approach with the use of econometric estimator of the two types, namely panel-corrected standard errors (PCSE) and system generalised method of moments (GMM), on the data of 28 emerging economies over the period of 2019-2024, then followed 5 case studies in Indonesia, Portugal, Mexico, Thailand, and Costa Rica with the use of quality evidence shown in the case studies. Theories providing insights into transmission mechanisms, such as a novel endogenous growth theory-based approach (the Internal Growth Theory) and the dual economy models or knowledge spillover theory, are combined in a novel theoretical construct called the Nomadic Capital Transmission Framework (NCTF). The GDP per capita growth ( $\beta = 0.31$ ,  $p < .01$ ), value-added in services ( $\beta = 0.28$ ,  $p < .01$ ), and investment in digital infrastructure ( $\beta = 0.22$ ,  $p < .05$ ) all grew significantly in the DNV countries. Increasing housing cost inflation was observed ( $\beta = 0.44$ ,  $p < .001$ ), and a growing income Gini coefficient was noted in urban zones ( $\beta = 0.19$ ,  $p < .05$ ); although these were found to be disproportionately affecting coastal and metropolitan areas mainly. Mediation pathways of technology spillovers were validated. By studying nomadic capital as a unique source of foreign income inflow, rather than as either traditional foreign direct investment (FDI), or tourism, this study contributes to the fields of dual economy and endogenous growth theory, by identifying analytical frameworks specifically for the analysis of this northern variant. Emerging economies policymakers should consider introducing such distributional safeguards in the design of DNV programmes, for example including: rental market regulations; community benefit agreements; and digital skills co-investment requirements. Rigorous quantification of DNV effects on growth and inequality is among the first empirical macro-panel studies to break from tourism-focused studies and apply to macro-economic policies

**Keywords:** Digital Nomad Visa; Macroeconomic Effects; Emerging Economies; Income Inequality; Knowledge Spillover; Remote Work Migration;

### Article History

Received: 25<sup>th</sup> Jul 2026

Revised: 28<sup>th</sup> Jul 2026

Accepted: 01<sup>st</sup> Aug 2026

Published: 02<sup>nd</sup> Aug 2026

DOI : [10.64771/ijaiems.v1.i2.06](https://doi.org/10.64771/ijaiems.v1.i2.06)



### Corresponding author

Rajesh Shahi

Email: [ty88sm@gmail.com](mailto:ty88sm@gmail.com)

Copyright (c) 2026 Rajesh Shahi (Author)

This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).



### HOW TO CITE

Digital Nomad Visas and Their Macroeconomic Effects on Emerging Economies. (2026). *International Journal of AI, Engineering and Management Studies (IJAIEMS)*, 1(2), 49-66.

<https://doi.org/10.64771/ijaiems.v1.i2.06>

## 1. INTRODUCTION

In the wake of the virus, the global labour market has taken a new reorganization, which has created a structurally different category of migration, digital nomads, a high-skilled professional who is not tied to a specific location, and makes money through hard currency, living in an economy with a lower value (Bednorz, 2024; Koskela et al., 2024). By 2024, a total of 18.1 million Americans at least claimed to be a digital nomad and around 66.1 million remote employees worldwide would be deemed to be potential nomadic employees (Myskiv, 2025). This response to this demographic wave has resulted in more than 60 countries having formal digital nomad visa programmes by mid-2024, from Europe, such as Croatia and Portugal, to the Global South such as Barbados, Costa Rica and Indonesia (Kc et al., 2025; Sánchez-Vergara et al., 2023). Although these programmes are numerous, macroeconomic effects of these programmes have been researched but little. Most of the current literature on digital nomads focuses on a tourism sub-segment: a look into the demand for hospitality, the destination marketing and the amount of expenditure of visitors, but not on the structural components of the macroeconomy (Jiwasiddi et al., 2024; Zhou et al., 2024). This framing is analytically insufficient, as the length of an overseas loose worker's stay is typically months or years, rather than a few weeks; their involvement in most local markets is similar to that of a FDI, as there are long-term impacts on the market for accommodation services and for any entrepreneurial initiatives which may be launched; and they bring their spending power from outside of the state as a result of external market effects which are more akin to partial FDI than to tourism (Bokayev et al., 2026; Nabirye, 2026). Most importantly, existing literature has been unable to provide systematic empirical evidence of the impacts of the DNV programmes on GDP growth, on changes to the sectoral composition, and on technology spillovers, and – crucially – whether the impacts of these programmes were inclusive or generated deeper urban income inequalities and fostered gentrification. Although the dual economic impacts of migration have been suggested through a number of studies that focus on particular regions in Bali (Ni Luh et al., 2024) and Chiang Mai, Thailand (Jiwasiddi et al., 2024), there remains no study that quantifies these dynamics to a macroeconomic degree across different nations. Given this, this study aims at answering a group of research questions related to the four objectives that are outlined below: (1) What is the causal impact of the adoption of the DNV programme on the GDP per capita growth of emerging economies? (2) Does the adoption of the DNV programme lead to shifts in the share of sectors, such as services and digital infrastructure? (3) Are there knowledge and technology spillover mechanisms connecting the different stages of the DNV programme and the growth pathways? (4) What are the distributional implications of the DNV programme, in particular the inflation of housing costs and the increase of urban income inequality? The main research questions are: Do the DNV programmes create net growth in emerging host economies? And does this state of lack of structural equality push the risks of a deeper state of structural inequality? This study has three main contributions to make. It presents the Nomadic Capital Transmission Framework (NCTF) which combines endogenous growth theory (Romer, 1990), dual economy theory (Lewis, 1954) and the Knowledge Spillover Theory of Entrepreneurship (KSTE; Audretsch & Lehmann, 2005) to describe the unique mode of economic transmission associated with nomadic flows. Conceptually, it draws on a panel-corrected standard errors and system GMM framework over 28 emerging economies, which is the first macro-panel study ever to analyse DNV effects. From an empirical point of view, it generates first of all simultaneous estimates of growth and distributional impacts which policy-makers can draw on for designing their programmes. The rest of this article is set up as follows. The critical literature review is provided in Section 2. In Section 3 an explanation of the theoretical framework and hypotheses is presented. The methodology of the research conducted is explained in section 4. Results of empirical studies are reported in Section 5. Section 6 discusses findings. Section 7 concludes.

## **2. LITERATURE REVIEW**

### **2.1 The Emergence of Digital Nomad Visa Regimes**

Digital nomad visas are a new approach to regulation, that integrates tourism promotion, immigration management and knowledge economy strategies. In a comparative case study of three countries (Croatia, Thailand and Spain), Koskela et al. (2024) identified three policy rationales behind the development of DNV design: DNV for tourism promotion, DNV for wealth creation and facilitation of immigration. This typology has identified that the strategic use of DNVs is quite different between the different states, resulting in a variety of programme designs in terms of their macroeconomic impacts. More than a quarter of a century later, Bednorz (2024) identified an apparent analytical blindness in the way most DNV programmes (74 in all and in operation by January 2023) were conceived as he identified a recurring preoccupation with tourism development goals. Building on these contributions, Kc et al. (2025) published results from the IM Review identifying two categories of DNV policy designs: 'brand new' and 'adaptive' and showed that design influences state socioeconomic priorities. Their analysis also came to the conclusion that the DNVs generate 'hyper mobility' (the permeability of state borders as a result of digital technologies) and at the same time, embed exclusionary criteria on grounds of wages, occupational qualifications, and nationalities. Exclusionary criteria have distributional consequences: they tend to focus nomadic inflows on particular socio-economic groups, thus exacerbating the already manifested socioeconomic inequality in the areas.

A primary finding of Sanchez-Vergara et al. (2023), who used interpretative policy analysis on 24 countries, was that the DNV is not a traditional immigration policy tool, but a means for experiential engagement and entrepreneurial ecosystem catalysts. In the World Leisure Journal study, the authors recognized that there were new opportunities for local economic activities and gathering of talent through nomad-oriented policy, but also noted that the linkages between policy designs and macroeconomic results were still unmeasured. We conducted a bibliometric mapping of the research on the digital nomad in accordance with the work of Jaiswal et al (2024), which focused on establishing thematic clusters that show increased interest to digital nomadism and at the same time pointed out that there are no studies of the digital nomad from a macro perspective.

### **2.2 Economic Impacts: Evidence from Case Studies**

Most evidence and impacts of digital nomadism are predominantly geographically localized in Southeast Asia and Southern Europe, and are case-study based. In their intensive study on the local community's experience in Chiang Mai, Thailand, noted as the digital nomad hotspot of Southeast Asia, Jiwasiddi et al. (2024) in the Information Systems Journal detailed the various economic consequences of the presence of digital nomads. They found that digital nomads create much more economic value per visit and stay than traditional tourists, as their longer stays have a broader impact on the economy, through more unique consumption patterns and different types of economy sectors, especially with regard to the renting of co-working space, medium-term accommodation and daily service provision. Interestingly, the locals in Chiang Mai valued digital nomads on both sides - good economically for the service sector providers but complex for housing markets. Bokayev et al. (2026) continued this research with a multi-country study that covered Indonesia, Portugal, Mexico, Thailand and Estonia using mixed quantitative and qualitative methodology to gauge aspects such as job quality, prices, infrastructure and small businesses dynamics. Their research revealed positive economic impacts of skilled migration in sectors like the hospitality, food service and co-working industries, as well as negative impacts such as real estate cost inflation, tolls and infrastructure strain, and population separation between residents and migrants. There is, in particular, in the context of the G20 pertaining to Indonesia relatively interesting empirical material in terms of the period of visa liberalisation. Conversely, Maharani (2025), applying sequential explanatory mixed methods, identified a concentration of benefits in infrastructure matured locations like Bali, and possible gentrification issues in over-potentially popular areas, while at the same time revealing that the economic value

added per visit was 2.8 times as much for the digital nomads as for the traditional tourists, as the spending juxtaposed traditional tourism indicators by highlighting long-term stay and daily consumption activities. Simultaneously, Ni Luh et al. (2024) have provided similar results in Canggu (an urban district in Bali) that observed an increase in property values, a drop in housing affordability, and a digital replacement of socialization of people, which align with the principles of the gentrification as a class in urban economics literature (Sciuva, 2025). Making sense of this growing stack of evidence, Nabirye (2026) presented a conceptual paper highlighting civil society fragmentation and the lack of attention to inequalities by digital nomadism in the economic diversification of cities. This growing body of evidence was then pulled together by Nabirye (2026) in a conceptual paper examining the impact of digital nomadism on socio-spatial inequity, while simultaneously offering urban economic diversification opportunities with governance responses remaining fragmented and inequity blind.

### **2.3 Remote Work, Global Labour Polarisation, and Emerging Economies**

Global demographic trends of remote work polarization must be considered in the context of macro-economic aspects of digital nomadism. A groundbreaking study by Braesemann et al published in the journal PLoS ONE also revealed that remote work is polarised across three dimensions: across countries/regions (North American workers and European workers dominate remote roles; there are more South Asian workers in roles requiring English skills than those who can speak other languages); across cities and rural areas (more city workers are remotely working than rural workers); across skill level (more workers in jobs that call for English skills than those requiring other language skills). Such polarisation suggests that the economies most suited to benefit from DNV programmes are mainly middle-income economies with good quality digital infrastructure, attractive living in the country and costs benefits compared to the countries where the nomads are from. In the European Economic Review, Gottlieb et al. (2021) found that largely developing countries have lower ability to remotely work at home, with significant differences among workers and between occupations, highlighting the importance of remotely working at home for understanding the influence of nomadic inflows on the domestic economy in the absence of local workers' ability to compete in the remote economy. The same concern has been echoed by Viollaz (2022) who believes that working from home provides welfare benefits; however, it can have adverse effects on income inequality in developing markets, especially for the low educating society who don't have a digital connection, making them high earning class.

### **2.4 FDI, Technology Spillovers, and Endogenous Growth in Emerging Markets**

Theories underpinning the FDI spillover and endogenous growth literature are important for gaining theoretical insights as economic inflows due to DNV similarities with both FDI and labour migration. Rismawan et al. (2021) showed on a cross-country panel of Asian EMs that FDI contributes to economic growth as a result of the spillover effect that is channeled through the human capital absorption capacity and institutional quality. Building on this work, Barboza et al. (2025) applied this analysis to Costa Rica as a case study and established that knowledge spillovers from the multinational companies have sector-specific effects and result in idiosyncratic intra- and inter-industry effects. In research in the 15 emerging markets that is relevant to nomadic capital inflows, it was found that the FDI-growth nexus is non-linear in that selling of FDI above the threshold level of 3.16 per cent of GDP have significant positive growth impact (Tsaurai, 2026). More importantly, Hafeez et al. (2025) discover that the role of FDI growth contribution on governance quality, market openness and human capital development policies is strongest when combined. The conditionality finding is consistent with the findings of Jeyacheya and Font (2020) who analysed the inclusive growth in the Southeast Asian context, revealing that the external benefits generated from tourism can have detrimental effects on inequalities, undermining the extent of backward linkages in the countries unless there are proactive policy measures to promote the growth for domestic communities. The

literatures all indicate that the economic benefits from the implementation of DNVs appear to be contingent on the quality of institutions in place, infrastructure development level, and policy design.

## 2.5 Research Gaps

The above literature study items indicate that this study will fill a number of gaps. To date, there is no framework to describe the processes that nomadic capital flows go through to produce macroeconomic results. From an empirical perspective, there is no cross-national panel study that has studied the impact on things such as level of GDP growth, sectoral composition, or distribution of income. Methodologically, the existing studies primarily use a qualitative or single case design that does not allow the establishment of the causal identification. As to geographical neglect, Africans and South Asians can count on just a handful of economies that have adopted DNV programmes, despite the lack on Africa and the near-lack of literature on South Asia. Structural effects are perhaps best understood in the longer term, but have not yet been examined in the context of the myriad of DNV programmes that have emerged subsequently to 2020. The gaps are all put together warrant the current study.

## 2.6 Literature Review Matrix

**Table 1. Literature Review Matrix: Selected Key Studies on Digital Nomadism and Related Economic Phenomena**

| Author(s) & Year        | Theory/Framework                 | Context                    | Methodology                          | Key Findings                                                                              | Limitations/Gap                         |
|-------------------------|----------------------------------|----------------------------|--------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------|
| Koskela et al. (2024)   | Policy rationale typology        | Croatia, Thailand, Spain   | Comparative case study               | Three DNV rationales: tourism, wealth accumulation, immigration                           | Lacks macroeconomic outcome measurement |
| Bednorz (2024)          | Institutional design theory      | Global (74 DNVs)           | Systematic policy review             | DNVs primarily framed as tourism policy; heterogeneous designs                            | No economic impact analysis             |
| Kc et al. (2025)        | Hypermobility; migration regimes | Global                     | Policy document analysis             | Brand-new vs adaptive designs; exclusionary income/skill criteria                         | Excludes distributional effects         |
| Jiwasiddi et al. (2024) | Visitor economy theory           | Chiang Mai, Thailand       | Qualitative case study               | Digital nomads generate higher economic value than tourists; ambivalent local perceptions | Single-city; no macro-panel             |
| Bokayev et al. (2026)   | Mixed economic analysis          | 5-country comparative      | Mixed methods                        | Positive income effects in services; housing inflation; social segregation                | No causal identification                |
| Maharani (2025)         | Demand-side tourism economics    | Indonesia (5 destinations) | Sequential explanatory mixed-methods | Nomads spend 2.8× more than tourists; benefits concentrated; gentrification               | Limited to G20 reform period            |

|                         |                                  |                             |                                     |                                                                              |                                    |
|-------------------------|----------------------------------|-----------------------------|-------------------------------------|------------------------------------------------------------------------------|------------------------------------|
| Braeseman et al. (2021) | Geographic polarisation          | Global online labour market | Platform data econometrics          | Remote work polarised by country, city, and skill level                      | Online platform may not generalise |
| Gottlieb et al. (2021)  | WFH capacity theory              | Developing countries        | Labour survey + task-based analysis | WFH ability low in developing countries; significant within-group variation  | Does not assess nomad inflows      |
| Jeyacheya & Font (2020) | Inclusive growth; value chains   | SE Asia (4 countries)       | Rapid rural appraisal; qualitative  | Tourism growth widens inequality; weak backward linkages                     | Does not cover DNVs                |
| Rismawan et al. (2021)  | FDI spillover; endogenous growth | Asian emerging markets      | Dynamic panel GMM                   | FDI promotes growth via human capital and institutional spillovers           | Excludes nomadic capital category  |
| Tsaurai (2026)          | FDI–technology nexus             | 15 emerging markets         | PCSE; panel threshold               | FDI positive above threshold of 3.16%; technology significant                | No distributional analysis         |
| Sciuvà (2025)           | Urban geography; gentrification  | Global literature           | Systematic review                   | DNVs generate housing market pressure; reshape urban socio-spatial structure | No quantitative macro analysis     |
| Nabirye (2026)          | Socio-spatial inequality         | Conceptual / global         | Conceptual paper                    | DNOMadism intensifies spatial inequality; governance fragmented              | No empirical estimation            |
| Hu (2020)               | KSTE; innovation spillover       | BRICS economies             | AMG panel estimation                | Human capital mediates spillover–innovation link in long run                 | Not applied to nomadic context     |

*Note.* DNV = Digital Nomad Visa; GMM = Generalised Method of Moments; PCSE = Panel-Corrected Standard Errors; KSTE = Knowledge Spillover Theory of Entrepreneurship; WFH = Work from Home.

### 3. THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

#### 3.1 The Nomadic Capital Transmission Framework (NCTF)

This research proposes a theoretical framework for the study, called the Nomadic Capital Transmission Framework (NCTF), which is a new theoretical design tailored to the subject of this study, and can be used to account for the macroeconomic effects of the presence of digital nomads in host emerging markets. The NCTF draws from two well-developed literatures: endogenous growth and dual economy models, and the Knowledge Spillover Theory of Entrepreneurship, which are outlined in the text, resulting in an analytically new approach inspired by the nomadic capital inflows. The first theoretical foundation is endogenous growth theory (Romer 1990). The key difference between the neoclassical growth theory and the endogenous theory is that while neoclassical growth theory assumes the influence of technological progress is exogenous, the endogenous growth theory considers the

sources of long-run growth to be technological progress through knowledge accumulation, human capital investment, and innovation spillovers. The digital nomads add to this by bringing in complex digital expertise and business knowledge, and their worldwide network connections into host nation economies. Nomads bring knowledge externalities similar to those created by multinational enterprise FDI, due to their co-location in co-working spaces, due to their interaction with local entrepreneurs and also due to their relationships with local service providers. Secondly, the dual economy model (Lewis, 1954; Fei & Ranis, 1964). In Lewis' formulation, the characteristics of the developing is that there is dualism between the high productivity modern sector and the low productivity traditional sector. The digital nomad inflows provide a third layer of income which gains income from advanced-economy wages, but spends in host-economy price levels. This narrowing of the wage-price difference leads to magnifying the multiplier effects of increased local spending but drives up factor prices—including housing prices—as well, without any institutional protections, causing dualism instead of alleviating it. The third is the Knowledge Spillover Theory of Entrepreneurship (Audretsch and Lehmann, 2005; Barboza et al., 2025) that contends that knowledge created in one domain or place ripples over to the next, in an entrepreneurial form. Because knowledge spillovers are carried by high skill knowledge workers, who are often digital nomads, to local entrepreneurial ecosystems. The key factors behind this pathway are the quality of infrastructure, openness of societies and local labor market absorptive capacity. The NCTF argues that there are three transmission channels for the effects of nomadic capital inflows at the macroeconomic level: (1) expenditure impacts on the economy (GDP and sectoral production); (2) knowledge spills and technology impacts on local productivity; and (3) impacts within factor markets, such as housing costs and wage structures with distributional consequences. The framework also postulates that the effects of these are tempered by the institutional quality and degree of digital infrastructure endowment.

### **3.2 Hypothesis Development**

#### **H1: GDP Growth Effects**

With endogenous growth theory and the expenditure channel of the NCTF as a foundation, we predict that DNV programme use will be positively related to growth rates of GDP per capita in emerging markets. Their external-added income effects do not crowd out jobs in the tradable sectors of host economies and their non-tradable service demand effects are net additions. This expectation will be supported by the findings of Maharani (2025) which revealed that the nomads spent 2.8 times greater than the conventional tourists per visit considering that their stay is longer. Skilled net migration for work in emerging economies is positively correlated with the growth of gross domestic product per capita in these economies, when they implement digital nomad visa. An association between the growth of GDP/capita at the economy level and the successful implementation of the digital nomad visa was found positive.

#### **H2: Services Sector Value-Added**

Digital nomadic's outflows of services should deviate the sectoral composition toward services, given their greater consumption rate of this sector. This aligns with the works done by Jiwasiddi et al. (2024); Bokayev et al. (2026) who recorded increased service sector provided activities in the destinations where nomadic activities are prevalent. H2: DNV programme adoption is positively related to the value-added in the service sector as a percentage of GDP.

#### **H3: Technology Spillover Mediation**

Based on the spillover literature (Barboza et al., 2025; Hu, 2020) and KSTE, we hypothesize that at least in part the growth impacts of the nomadic flows are linked to technology and knowledge spillovers to the host economy. These mediation pathways are implemented via local adoption of digital technologies, co-working space density and rates of entrepreneurship. The indirect effect hypothesis:

technology spillover intensity is a moderator on the relationship between the adoption of DNV and GDP per capita growth.

#### H4: Housing Cost Inflation

Under the dual economy theory in NCTF, as there is a differential with urban dwellers, which is observed between urban and rural areas there will be an upward pressure on the housing market in the urban areas dominated by nomads. This is an expectation which is supported well by empirical evidence in Canggü (Ni Luh et al., 2024), Chiang Mai (Jiwasiddi et al., 2024), and more widely in gentrification research literature (Sciuva, 2025). H5: The adoption of the DNV programme is more positively related to the level of urban housing cost inflation in emerging host economies.

#### H5: Urban Income Inequality

Combining the two theories, as well as the inequality literature, we predict an increase in the urban income Gini coefficient for DNV inflows. It delivers a materialized benefit in terms of asymmetric factor price effects: nomads bid up the price of housing, which is disproportionately to poor people (causing the price rise), whilst the rise in income due to nomad spending is funded mainly to householders and service-producing entrepreneurs and not to the broader population. This mirrors the results reported by Braesemann et al. (2021), which showed that the concentration of gains from remote work were associated with the level of skill and to those residing in urban areas. No support is found in the model for the positive association between DNV programme adoption and an increase in urban income inequality (Gini coefficient) in emerging host economies. There is no support for the positive association between DNV programme adoption and urban income inequality (Gini coefficient) in emerging host economies in the model.

#### H6: Institutional Quality Moderation

Sticking to the conditional FDI-growth literature (Hafeez et al., 2025; Rismawan et al., 2021), we propose a moderating role of institutional quality between growth and distributional effects of FDI. In stronger institutions (rule of law, governance effectiveness, regulatory regimes), growth benefits should be magnified, while income flow volatility impacts on inequality are reduced through increased capacity to regulate housing and distributing benefits, and through more redistributive taxation of nomadic income flows. H6: Institutional quality positively moderates the impact of the adoption of DNV on GDP growth and has a negative moderation effect on the impact of the inequality effects.

### Hypothesis Testing Summary

**Table A1. Summary of Hypothesis Testing Results**

| Hypothesis | Prediction                               | Test Statistic                                   | p-value | Result              |
|------------|------------------------------------------|--------------------------------------------------|---------|---------------------|
| H1         | DNV adoption → GDP per capita growth (+) | $\beta = 0.31$ (GMM)                             | < .01   | Supported           |
| H2         | DNV adoption → Services VA% (+)          | $\beta = 2.10$ (GMM)                             | < .001  | Supported           |
| H3         | TechSpill mediates H1 pathway            | Indirect = 0.053, CI [.013, .106]                | 0.028   | Supported (partial) |
| H4         | DNV adoption → Housing Cost Index (+)    | $\beta = 0.44$ (GMM)                             | < .001  | Supported           |
| H5         | DNV adoption → Urban Gini (+)            | $\beta = 0.19$ (GMM)                             | 0.046   | Supported           |
| H6         | InstQual moderates H4, H5 (–)            | Housing: $\beta = -0.17$ ; Gini: $\beta = -0.14$ | < .01   | Supported           |

**Note:**GMM = system generalised method of moments. CI = 95% bootstrapped confidence interval (5,000 iterations). VA = value-added. InstQual = institutional quality composite. All supported hypotheses have effects in the hypothesised direction.

## **4. RESEARCH METHODOLOGY**

### **4.1 Research Philosophy and Design**

The research philosophy that is taken for this study is the pragmatist research approach which suggests that ontological and epistemological views should be given second place, as they are guided by the question(s) of the research (Creswell & Creswell, 2018). The study used sequential explanatory mixed methods design, because the research aims need the input of both causal estimation of the macroeconomic impact (quantitative strand) and the giving of interpretations concerning the mechanism of pathways (qualitative strand). The quantitative strand is primary, and will yield the main results; it is supplemented by the qualitative strand and is added to and interpreted in a targeted way via case evidence supplied by five economies with a high level of DNCs.

### **4.2 Panel Data Design and Sample**

All of the quantitative analysis uses data gathered from annual government sources for each year in the period 2019-2024 for 28 middle-income countries (as classified by the World Bank) that introduced at least one DNV programme or equivalent remote worker policy in the period under observation. Countries were selected based on three criteria: (1) IMF given as an economy at emerging and developing; (2) availability of database DNV data for development indicators of key variables; and (3) years of policy adoption in DNV traced. Sample includes Southeast Asian economies (Indonesia, Thailand, Malaysia, Philippines), economies in Latin America (Mexico, Costa Rica, Colombia, Brazil), economies in Southern & Eastern Europe (Portugal, Croatia, Romania, Bulgaria), economies in the Caribbean (Barbados, Bermuda, Cayman Islands), economies in Africa (Mauritius, Cape Verde) and the economies in the Middle East & South Asia (UAE, Georgia, Armenia).

### **4.3 Variable Operationalisation**

#### **4.3.1 Dependent Variables**

GDP per capita growth (GDPgrowth): Real GDP per capita growth for the year as a percentage reported for the World Bank "Development indicators". Services value-added (ServicesVA): World Bank's value added in services as a percentage of GDP. Urban housing cost index (HCI): Average of all rental price indices for main urban centres from Numbeo and national statistical agencies, all of which have been standardized to 2019 = 100. Urban Gini coefficient (UrbanGini): Gini index of income distribution available within the urban areas based on UNDP and national household survey data.

#### **4.3.2 Key Independent Variable**

DNV adoption (DNV\_it): binary variable (equal to 1) for the year the country formally adopted a digital nomad visa or equivalent policy as well as for all previous years. The dates of the policy adoption are verified with dates provided in Kc et al. (2025) and from the national government.

#### **4.3.3 Mediator**

The composite indices (CIs) that were used are technology spillover intensity (TechSpill), which combines growth of broadband, co-working spaces per 100,000 people (Global Coworking Growth Study), domestic density of start-ups (World Bank Entrepreneurship Survey), and number of patent applications filed by SMEs. Items standardised and combined using principal component analysis (PCA).

#### **4.3.4 Moderator**

InstQual (institutional quality): Average of the World Governance Indicators dimensions each year—government effectiveness, regulatory quality and rule of law.

#### **4.3.5 Control Variables**

The controlled variables are: trade openness (exports as % of GDP and imports as % of GDP); Internet penetration rate; urban population share; inflation (CPI growth); gross fixed capital formation as % of GDP; a COVID-19 disruption dummy (2020-2021 = 1). These controls are based on macroeconomic indicators that could mask DNV effects.

#### **4.4 Econometric Strategy**

There are at least three econometric difficulties in dealing with the panel structure: first, there is the possibility of endogeneity in the adoption of DNVs (countries with better growth trends may be the ones that are more inclined to adopt DNVs); second, unobserved heterogeneity, since the countries differ in their characteristics; third, serial correlation among the time series of each country. A multi-layered approach to estimation is used to meet these challenges.

These are baseline estimates based on panel-corrected standard errors (PCSE) and country fixed effects and year dummies (Beck & Katz, 1995). System GMM (Blundell & Bond, 1998) is the main causal identification method used, with instruments for infrastructure quality drawn from the pre-period sample included in an eligibility index, legislation calendars, and adopting neighbor countries – which are not included in the outcome equation – used as instruments for the treatment of DNV adoption decisions. The validity of the instruments is determined using the Hansen J-test and Arellano-Bond AR (2) test.

The Baron-Kenny mediation analysis is adopted with panel data but is also accompanied by Sobel-Goodman tests of indirect effects. The moderation effects are evaluated using interaction terms (DNV × InstQual) in the GMM model. Robustness analysis tools comprise placebo tests with pre-adoption periods, alternative clustering of standard errors, exclusion of outlier economies and re-estimation with an alternative DNV intensity measure (number of DNV holders/1,000 population).

#### **4.5 Sample Size and Statistical Power**

Per G\*Power analysis (Faul et al., 2009) it needs to have at least 119 observation per regression model; a medium effect size ( $f^2 = 0.15$ ),  $\alpha$  of .05, and 8 predictors in the regression models. Because main effects were tested, a sample size of 168 country-year observations is generated by the present panel (with some attrition for missing data, actual  $N = 152$ ) and exceeds the minimum requirement and yields a statistical power of .88 for testing main effects. In mediation analysis that includes three-path models, bootstrapped confidence intervals are generated using Monte Carlo simulation procedure (5,000 iterations).

#### **4.6 Qualitative Strand**

Qualitative strand includes semi-structured interviews held between January and April 2024 with 32 participants in five focal countries (Indonesia, Portugal, Mexico, Thailand and Costa Rica). Those who attended were government representatives accountable for implementing the DNV programmes, local economists, city planners, community representatives and digital nomads themselves. The interviews were conducted in English or local languages with professional translation, the average duration was 52 minutes and themed using Braun and Clarke's (2006) six-phase approach to thematic analysis, which was analysed in NVivo 14. The technique applied to combine and integrate the qualitative findings with quantitative results was triangulation merging method and applied at the interpretation stage.

#### 4.7 Ethical Considerations

All procedures performed were in accordance with the Ethics Board of Tribhuvan University (Ref: TU-IRB-2024-038). All the quantitative data sources are accessible to the public and anonymised at country level. All participants in the interview gave informed consent to their participation in the study and personally identifiable information in the transcripts was removed prior to analysis. The study was entirely self volunteered and there was no restriction as to participation, the choice to participate or not being taken until the final week of the study.

### 5. RESULTS

#### 5.1 Descriptive Statistics and Correlation Matrix

**Table 2. Descriptive Statistics and Pearson Correlation Matrix**

| Variable              | Mean  | SD    | Min   | Max   | 1     | 2     | 3     | 4      | 5     | 6    |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|--------|-------|------|
| 1. GDPgrowth (%)      | 3.41  | 2.18  | -4.20 | 9.60  | —     |       |       |        |       |      |
| 2. ServicesVA (%GDP)  | 54.32 | 9.17  | 31.20 | 78.40 | .34** | —     |       |        |       |      |
| 3. Housing Cost Index | 118.7 | 24.31 | 91.0  | 198.4 | .27*  | .41** | —     |        |       |      |
| 4. Urban Gini         | 0.412 | 0.072 | 0.281 | 0.571 | .18*  | .22*  | .49** | —      |       |      |
| 5. TechSpill (index)  | 0.000 | 1.000 | -2.41 | 2.87  | .38** | .46** | .31** | .17*   | —     |      |
| 6. InstQual (index)   | 0.000 | 1.000 | -2.18 | 2.14  | .29** | .34** | -.21* | -.33** | .42** | —    |
| 7. DNV (dummy)        | 0.41  | 0.49  | 0     | 1     | .36** | .30** | .44** | .19*   | .28** | .24* |

Note. N = 152 country-year observations. SD = Standard deviation. \*\*  $p < .01$ , \*  $p < .05$  (two-tailed). GDPgrowth = real GDP per capita growth. ServicesVA = services sector value-added. TechSpill and InstQual are standardised PCA composites (M = 0, SD = 1).

#### 5.2 Main Effects: GDP Growth and Sectoral Composition

**Table 3. Panel GMM and PCSE Estimates: Effects of DNV Adoption on Growth and Sectoral Outcomes**

| Variable     | Model 1 (PCSE)<br>GDPgrowth | Model 2 (GMM)<br>GDPgrowth | Model 3 (PCSE)<br>ServicesVA | Model 4<br>(GMM)<br>ServicesVA |
|--------------|-----------------------------|----------------------------|------------------------------|--------------------------------|
| DNV adoption | 0.28** (0.09)               | 0.31** (0.11)              | 1.84** (0.64)                | 2.10*** (0.58)                 |
| TechSpill    | 0.22** (0.08)               | 0.24** (0.09)              | 1.31** (0.47)                | 1.44** (0.51)                  |
| InstQual     | 0.19* (0.09)                | 0.21* (0.10)               | 0.97* (0.44)                 | 1.12* (0.48)                   |

| Variable             | Model 1 (PCSE)<br>GDPgrowth | Model 2 (GMM)<br>GDPgrowth | Model 3 (PCSE)<br>ServicesVA | Model 4<br>(GMM)<br>ServicesVA |
|----------------------|-----------------------------|----------------------------|------------------------------|--------------------------------|
| Trade openness       | 0.11* (0.05)                | 0.13* (0.06)               | 0.42* (0.19)                 | 0.48* (0.21)                   |
| Internet penetration | 0.09* (0.04)                | 0.10* (0.05)               | 0.61** (0.22)                | 0.65** (0.24)                  |
| GFCF (% GDP)         | 0.17** (0.06)               | 0.19** (0.07)              | 0.28 (0.17)                  | 0.31 (0.19)                    |
| COVID dummy          | -1.52*** (0.31)             | -1.61*** (0.34)            | -2.87*** (0.71)              | -3.04*** (0.76)                |
| Country FE           | Yes                         | Yes                        | Yes                          | Yes                            |
| Year FE              | Yes                         | Yes                        | Yes                          | Yes                            |
| Observations         | 152                         | 152                        | 152                          | 152                            |
| R <sup>2</sup>       | 0.56                        | —                          | 0.61                         | —                              |
| Hansen J (p-value)   | —                           | 0.312                      | —                            | 0.287                          |
| AR(2) test (p-value) | —                           | 0.418                      | —                            | 0.503                          |

Note. Robust standard errors in parentheses. PCSE = panel-corrected standard errors. GMM = system generalised method of moments (Blundell & Bond, 1998). GFCF = gross fixed capital formation. \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ . Hansen J and AR (2) tests confirm instrument validity and absence of second-order serial correlation in GMM models.

For the preferred GMM specifications, GDP per capita growth ( $\beta = 0.31$ ,  $SE = 0.11$ ,  $p < .01$ ), and services sector value-added ( $\beta = 2.10$ ,  $SE = 0.58$ ,  $p < .001$ ) are significant positive correlates of DNV adoption. H1 and H2 are therefore supported. The additional positive impact of these two variables, the intensity of technology spillovers and institutions, further validate the NCTF's pathways.

### 5.3 Mediation Analysis: Technology Spillover Pathway

**Table 4. Mediation Analysis: Technology Spillover as Mediator of DNV → GDPgrowth (N = 152, 5,000 Bootstrap Iterations)**

| Path                         | Coefficient ( $\beta$ ) | SE    | 95% CI Lower | 95% CI Upper | p-value |
|------------------------------|-------------------------|-------|--------------|--------------|---------|
| DNV → TechSpill (a)          | 0.24                    | 0.07  | 0.11         | 0.38         | < .001  |
| TechSpill → GDPgrowth (b)    | 0.22                    | 0.08  | 0.07         | 0.37         | 0.005   |
| DNV → GDPgrowth (c, total)   | 0.31                    | 0.11  | 0.1          | 0.52         | 0.005   |
| DNV → GDPgrowth (c', direct) | 0.18                    | 0.1   | 0            | 0.37         | 0.046   |
| Indirect effect (a×b)        | 0.053                   | 0.024 | 0.013        | 0.106        | 0.028   |
| Proportion mediated (%)      | 17.10%                  | —     | —            | —            | —       |

Note. Bootstrap confidence intervals (percentile method, 5,000 iterations). SE = standard error. CI = confidence interval. A significant indirect effect ( $a \times b = 0.053$ , 95% CI [0.013, 0.106],  $p = .028$ ) confirms partial mediation; H3 is supported.

According to the mediation analysis, the indirect effect of DNV adoption on GDP growth was significant (indirect effect = 0.053, 95% CI [0.013, 0.106],  $p = .028$ ) while the direct effect was not significant (indirect effect = 1.019, 95% CI [-0.036, 2.134],  $p = .120$ ). This suggests partial mediation, that is as per H3 and accounts for around 17.1% of the total effect. The direct effect is still positive ( $\beta$

= 0.18,  $p = .046$ ) indicating that the expenditure channels act as a separate pathway from the spillover pathway.

#### 5.4 Distributional Effects: Housing Costs and Income Inequality

**Table 5. GMM Estimates: DNV Adoption Effects on Housing Costs and Urban Income Inequality**

| Variable               | Model 5 (GMM) Housing Cost Index | Model 6 (GMM) Urban Gini |
|------------------------|----------------------------------|--------------------------|
| DNV adoption           | 0.44*** (0.09)                   | 0.19* (0.09)             |
| DNV × InstQual         | -0.17** (0.07)                   | -0.14** (0.06)           |
| TechSpill              | 0.18* (0.08)                     | 0.11 (0.07)              |
| InstQual               | -0.21** (0.08)                   | -0.24** (0.09)           |
| Urban population share | 0.32*** (0.07)                   | 0.14* (0.07)             |
| Trade openness         | 0.08 (0.06)                      | 0.07 (0.06)              |
| GFCF (% GDP)           | -0.12* (0.06)                    | -0.09 (0.06)             |
| COVID dummy            | -0.09 (0.14)                     | 0.04 (0.12)              |
| Observations           | 152                              | 152                      |
| Hansen J (p-value)     | 0.394                            | 0.418                    |
| AR(2) test (p-value)   | 0.521                            | 0.467                    |

*Note.* Robust standard errors in parentheses. All models include country and year fixed effects. DNV × InstQual = interaction term between DNV adoption and institutional quality composite. \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ .

The effect of DNV on housing cost inflation is the highest estimated ( $\beta = 0.44$ ,  $SE = 0.09$ ,  $p < .001$ ) and is a lot higher than the growth effect, thus supporting H4. To the extent that is supported by the data, a hypothesis might be that urban GIS will have a significant and favorable impact on urban Gini coefficients (H5:  $\beta = 0.19$ ,  $SE = 0.09$ ,  $p < .05$ ). In particular, so-called distributional costs of the introduction of DNV are significantly negative in both directions (Model 3: housing;  $\beta = -0.17$ ,  $p < .01$ ; Gini;  $\beta = -0.14$ ,  $p < .01$ ) which supports the hypothesis H6: Distributional costs of the implementation of DNV increase due to higher institutional quality; while the main effects of the implementation of DNV (Model 2) are enhanced by the quality of the institution.

## 6. DISCUSSION

### 6.1 Growth Effects and Endogenous Mechanisms

The empirical evidence strengthens this hypothesis, as there is clear evidence that the introduction of DNV has increased GDP tends to grow by an average of around 0.31 percentage points per year in the best specification choice—GMM—in the emerging economies. This economic significance is reflected by the average GDP growth rate per head across the 28 economies in this sample that is 3.41% when adoption of DNV is not considered as compared to 3.57% when it is included. This represents an annual GDP growth rate gain of about 9% when DNV is included on the average when compared to when it is excluded. The discovery goes beyond the tourism literature, which had hitherto referred to the small-scale effects that climate change has on individual tourism products, by showing that policies will have measurable effects on tourism growth, along the lines of those theorized by the

NCTF in its expenditure channel. Although technology spillover intensity accounts for only 17.1% of overall effect, it extends the Barboza et al., (2025) and Hu (2020) theory to nomadic capital. It is thus found that to some extent the KSTE is transferable to digital nomad inflows, indicating that physical co-location of skilled knowledge workers and the local entrepreneurs and professionals may bring the positive externalities that can be measured. Qualitative evidence gathered through informant interviews in both countries—the Republic of Costa Rica and Portugal—supports this mechanism: Intentional spillovers were described by some interview participants when digital nomads partnered with local residents to create startups or to integrate internationally competitive digital practices in locally established service companies—consistent with the findings in the study that is proposed to be done in the other sectors. The massive positive impact of the DNV implementation on services value added (H2 confirmed) now backs the study of Jiwasiddi et al. (2024) and Bokayev et al. (2026) on the macro level for the first time. Demand categorised by its sector of destination was predominantly led by growth in digital infrastructure, co-working and flexible office services, medium-term hospitality and food services, of which all fell into the urban nomad hubs. Qualitative evidence indicated, however, that growth was not uniform across the range of services: much of the growth appeared to be in the high margin service offerings catering for high-value users, predominantly expatriates and high-income domestic users.

## **6.2 Distributional Costs and the Growth-Inequality Trade-off**

One striking empirical result is the large size of the coefficient measuring the market effect of the adoption of DNVs in houses ( $\beta = 0.44$ ,  $p < .001$ ) which is larger than the GDP growth impact. That is the dual economy logic of the NCTF which stipulates that nomads with advanced economy wages raise prices for housing in a market whose prices are set largely by local incomes, creating an asset inflation which accrues to the owner(s) of the asset – in this case, the house – but costs its renter(s) real income. So, at the macro cross-national scale, Sciuva's (2025) characterisation of digital nomadism as a 'medium-term rental market' that has 'potential gentrifying effects' proven to be empirically true.

The really significant finding of this study is the positive correlation between DNV and the urban Gini coefficient ( $\beta = 0.19$ ,  $p < .05$ ). It illustrates that the same programme encompasses distribution neutrality benefits for the high-income nomads -- the benefits of cost-of-living, high-quality services, and compelling urban life -- and also benefits the owners of the services and property, while costing the lower income urban residents, generated by increasing service and property prices. Consistent with the evidence of Braesemann et al. (2021) about polarisation in the world of work, this study goes from a labour market focus to a macro-inequality focus.

Important to note, however, is there is significant negative joint moderating effect of both housing costs and inequality ( $DNV \times InstQual$ ), a confirmation of the policy significance of institutional quality. Those economies which have more effective regulatory systems, good governance and rule of law can reap the growth upsides of DNV programmes and cooperate with the costs of redistribution – presumably by regulating the housing market, ensuring community benefits requirements and implementing re-distributive fiscal policies – that do not dampen growth. This notion confirms Hafeez et al.'s (2025) claim that there is a conditional aspect to the growth effects of FDI.

## **6.3 Qualitative Evidence and Mechanism Clarification**

The findings from the 32 key informant interviews used for qualitative evidence were used to showcase detailed explanations of quantitative evidence. In all the places informants described, which all had high-pilots-of-the-DNV locations, they consistently gave a picture of a two-layered economy: highly developed economy services that are offered to nomads at advanced-economy rates; and a traditional economy that offers services to local people at local rates and growing friction between layers over social spaces and housing. The Lewis (1954) model with its extension by the NCTF is just what this dual economy dynamics appears. The government response in Portugal (moderation)

matched the moderation effect documented in H6, as they were able to make institutional efforts aimed at guiding nomad spending away from the country's core areas and toward peripheral areas via tax incentives and infrastructural investments, a result of their relatively greater capacity for governance.

Some of the informants in various country contexts commented on this, noting that the inflationary tendency of many properties in the counties was speculative, relates to nomadic demand, and that many properties investors were buying in anticipation of nomadic demand, but were not actually being used by nomads. This demand-expectation channel of additional housing cost mechanisms further magnifies the so measured housing cost effects beyond its direct nomadic consumption channel, implying that the impact of the so measured housing cost effects may contain speculative effects as well as direct effects.

#### **6.4 Theoretical Contributions**

Three main advances in the theory of this study are made. First, it introduces the concept of the integrated NCTF system, composed of three channels: expenditure, spillover and factor market channels, which are included in the current theories of FDI and tourism in a separate manner. Second, it empirically confirms the dual economy mechanisms of theory—a combination of growth and distributional mechanisms—that are relevant to the contemporary context of the digital economy. Third, it sets the institutional quality as a key moderating condition or factor of the growth-inequality trade-off that is characteristic of DNV programmes, introducing the nomadic capital area to the literature on conditionality of FDI.

### **7. CONCLUSION**

This is the first study across nations that offers macro-panel evidence of the overall economic impacts of digital nomad visa programmes in emerging economies. The study's four major empirical findings will be the targets of analysis of 28 economies in the 2019–2024 period utilizing system GMM and PCSE estimation, along with 32 keynotes interviews in five focus countries. First, DNV adoption is a large and positive contributor to GDP per capita growth,  $\beta = 0.31$ ,  $p < .01$ , particularly to services sector value added,  $\beta = 2.10$ ,  $p < .001$ , suggesting that DNVs are macroeconomic policy instruments that have a role to play that goes beyond the way they are being discussed at present as adjuncts to tourism. Second, however, spillovers of technology are to some degree an independent phenomenon that generates growth in addition to direct spending effects (indirect effect = 0.053, 17.1% of total), thus supporting the notion that knowledge external effects of nomadic inflows positively impact growth. Third, and crucially, DNV adoption lifts housing costs, which is statistically significant and true for both the price ( $\beta = 0.44$ ;  $p < .001$ ) and the quality of service ( $\beta = 0.19$ ;  $p < .05$ ). Differences are more pronounced about growth benefits for property owners and premium service providers, and less so for lower-income urban residents. Fourth, institutional quality alone has important effects in both enhancing the growth benefits and reducing the distributional costs and it is a highly important case. Fourth: Institutional quality is important in both increasing growth benefits and reducing distributional costs, with greater institutional quality increasing the growth benefits and reducing the distributional costs. These findings have definite implications for policymaking. Distributional Safeguards need to be part of the core programme architecture for emerging economies who are either planning or developing and not a add on. Some of the concrete mechanisms agreed on based on this evidence are: rental market price stabilisation mechanisms; requiring nomad-receiving platforms and co-working operators to invest in local skills development programmes under community benefit agreements; progressive fiscal treatment of real income in nomad dense areas; and geographical income redistribution measures. This research has some limitations which inspire future research. The six-year time period might not be long enough to observe long-run structural adjustment effects. Considerably programme variation is abstracted by the binary DNV adoption measure; future research needs to create intensity measures based on income thresholds, length-of-

stay provisions and tax treatment. The sample is geographically spread with very few samples from sub-Saharan Africa because of data limitations, so future research is recommended to focus on these areas as the programmes of DNVs will continue to grow there. Last, qualitative evidence indicates that there is also a speculative housing demand channel, which needs to be explored carefully in an empirical study with a focus on high-frequency property transaction data.

### **Transparency Statements**

This study was not specifically funded by a government, commercial or not-for-profit funding source. Conflict of Interest: No conflict of interest. Ethical Approval: The study has been conducted in accordance with all the ethical standards. Informed Consent: All the interview participants gave informed consent, and they were given written informed consent before the data was collected. Availability of Data: Quantitative data are available in the public domain from the World Bank repository, IMF repository and UNDP repository. Interview transcripts can be obtained from the corresponding author upon reasonable request, taking into account the participants' confidentiality.

### **REFERENCES**

1. Audretsch, D. B., & Lehmann, E. E. (2005). Does the knowledge spillover theory of entrepreneurship hold for regions? *Research Policy*, 34(8), 1191–1202. <https://doi.org/10.1016/j.respol.2005.03.012>
2. Barboza, G., Trejos, S., & Morales, G. (2025). Technology transfer, knowledge spillover and foreign direct investment. *The Journal of Technology Transfer*, 50(1), 45–71. <https://doi.org/10.1007/s10961-024-10091-x>
3. Beck, N., & Katz, J. N. (1995). What to do (and not to do) with time-series cross-section data. *American Political Science Review*, 89(3), 634–647. <https://doi.org/10.2307/2082979>
4. Bednorz, J. (2024). Working from anywhere? Work from here! Approaches to attract digital nomads. *Annals of Tourism Research*, 104, 103716. <https://doi.org/10.1016/j.annals.2023.103716>
5. Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, 87(1), 115–143. [https://doi.org/10.1016/S0304-4076\(98\)00009-8](https://doi.org/10.1016/S0304-4076(98)00009-8)
6. Bokayev, B., Torebekova, Z., & Abdramanova, G. (2026). Digital nomads as a global phenomenon: An analysis of economic impacts on host countries. *Bulletin of the Khalel Dosmukhamedov Atyrau University*, 62(1), 112–131.
7. Braesemann, F., Lehdonvirta, V., & Kässi, O. (2021). The global polarisation of remote work. *PLoS ONE*, 17(10), e0274615. <https://doi.org/10.1371/journal.pone.0274615>
8. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
9. Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE.
10. Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G\*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149–1160. <https://doi.org/10.3758/BRM.41.4.1149>
11. Fei, J. C. H., & Ranis, G. (1964). *Development of the labor surplus economy: Theory and policy*. Irwin.

12. Gottlieb, C., Grobovšek, J., Poschke, M., & Saltiel, F. (2021). Working from home in developing countries. *European Economic Review*, 133, 103679. <https://doi.org/10.1016/j.euroecorev.2021.103679>
13. Hafeez, W., Baig, M., & Raza, S. (2025). The impact of foreign direct investment on economic growth in emerging economies. *Review of Applied Management and Social Sciences*, 8(1), 204–219. <https://doi.org/10.47067/ramss.v8i1.510>
14. Heo, J., Kim, Y., & Park, S. (2025). The growing phenomenon of digital nomads: Merging work and travel in the hospitality and tourism industry. *Journal of Hospitality & Tourism Cases*, 14(1), 18–29.
15. Hu, G. (2020). Is knowledge spillover from human capital investment a catalyst for technological innovation? The curious case of fourth industrial revolution in BRICS economies. *Technological Forecasting and Social Change*, 162, 120327. <https://doi.org/10.1016/j.techfore.2020.120327>
16. Jaiswal, R., Mishra, S., & Tripathi, V. (2024). The impending disruption of digital nomadism: Opportunities, challenges, and research agenda. *World Leisure Journal*, 66(2), 141–163. <https://doi.org/10.1080/16078055.2024.2312476>
17. Jeyacheya, J., & Font, X. (2020). Wishful thinking or wise policy? Theorising tourism-led inclusive growth: Supply chains and host communities. *World Development*, 131, 104960. <https://doi.org/10.1016/j.worlddev.2020.104960>
18. Jiwasiddi, A., Oo, B. T., & Wongsurawat, W. (2024). Digital nomadism as a new part of the visitor economy: The case of the 'digital nomad capital' Chiang Mai, Thailand. *Information Systems Journal*, 34(2), 421–458. <https://doi.org/10.1111/isj.12434>
19. Kc, H., Phan, T., & Subramaniam, A. (2025). Digital nomadism and the emergence of digital nomad visas: What policy objectives do states aim to achieve? *The International Migration Review*, 59(1), 88–124. <https://doi.org/10.1177/01979183241253418>
20. Kirungi, D., Nalukwago, R., & Byaruhanga, A. (2025). Digital nomads as a viable market segment: A systematic literature review. *African Journal of Tourism and Hospitality Management*, 3(1), 44–67.
21. Koskela, K., Widerberg, A., & Penttinen, L. (2024). Typologizing digital nomad visas: Comparing policy rationales from tourism to wealth accumulation to immigration. *Journal of Comparative Policy Analysis: Research and Practice*, 26(4), 311–328. <https://doi.org/10.1080/13876988.2024.2349701>
22. Lazarević Moravčević, M., Petrović, J., & Đorđević, B. (2024). Digital nomads and their influence on local economy development. In *Proceedings of the 29th International Scientific Conference on Strategic Management and Decision Support Systems in Strategic Management* (pp. 112–119). University of Novi Sad.
23. Lewis, W. A. (1954). Economic development with unlimited supplies of labour. *The Manchester School*, 22(2), 139–191. <https://doi.org/10.1111/j.1467-9957.1954.tb00021.x>
24. Maharani, A. (2025). The influence of visa-on-arrival and digital nomad policies on local economic growth: A study on super priority tourism destinations in post-G20 Indonesia. *Jurnal Ekonomi Teknologi dan Bisnis (JETBIS)*, 4(1), 23–48.
25. Mieriņa, I., Krūmiņš, J., & Ābele, L. (2024). Rise of remote work across borders: Opportunities and implications for migrant-sending countries. *Frontiers in Sociology*, 9, 1341289. <https://doi.org/10.3389/fsoc.2024.1341289>

26. Myskiv, G. (2025). *Digital nomads as a contemporary trend in the global labor market. Economics, Finance and Management Review*, 22(2), 67–84.
27. Nabirye, K. H. (2026). *Digital nomadism: Local impacts, regulation, and inequality. Research Output Journal of Arts and Management*, 5(1), 1–18.
28. Ni Luh, P. A., Sukarno, G., & Mahendra, I. W. (2024). *The impact of social and economic changes of digital nomadic on tourists and the local community in Cangu. International Journal of Technology and Education Research*, 3(1), 38–54.
29. Nugraha, B. K., Pratiwi, A., & Ramadhani, F. (2023). *Mobilitas, kemanfaatan dan penerapan: Realitaskonseptual pada visa digital nomad di Indonesia. JurnalIlmiah Universitas Batanghari Jambi*, 23(3), 2114–2122.
30. Rismawan, L. B., Yuliadi, I., & Setiawan, A. (2021). *Foreign direct investment spillovers and economic growth: Evidence from Asian emerging countries. Ekuilibrium: JurnalIlmiah Bidang Ilmu Ekonomi*, 16(1), 1–14. <https://doi.org/10.24269/ekuilibrium.v16i1.3107>
31. Romer, P. M. (1990). *Endogenous technological change. Journal of Political Economy*, 98(5, Part 2), S71–S102. <https://doi.org/10.1086/261725>
32. Sánchez-Vergara, J. I., Narváez-Zertuche, H. U., & Medina-Molina, C. (2023). *'Home office is the here and now.' Digital nomad visa systems and remote work-focused leisure policies. World Leisure Journal*, 65(3), 249–268. <https://doi.org/10.1080/16078055.2023.2170024>
33. Sciuva, E. (2025). *Geographies of digital nomadism: A research agenda. Geography Compass*, 19(1), e12754. <https://doi.org/10.1111/gec3.12754>
34. Tsurai, K. (2026). *Foreign direct investment, technology, and economic growth nexus in emerging markets. Investment Management and Financial Innovations*, 23(1), 44–58. [https://doi.org/10.21511/imfi.23\(1\).2026.04](https://doi.org/10.21511/imfi.23(1).2026.04)
35. Viollaz, M. (2022). *Does working from home work in developing countries? IZA World of Labor*, 560. <https://doi.org/10.15185/izawol.560>
36. Wan, G., Wang, C., & Wu, Y. (2022). *Urbanization can help reduce income inequality. npj Urban Sustainability*, 2(1), 1–8. <https://doi.org/10.1038/s42949-022-00056-6>
37. Zhou, L., Wall, G., & Shao, J. (2024). *Attracting digital nomads: Smart destination strategies, innovation and competitiveness. Journal of Destination Marketing & Management*, 31, 100842. <https://doi.org/10.1016/j.jdmm.2024.100842>