

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

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ABSTRACT

Indonesia's G20 Presidency in 2022 was followed by a breakthrough policy to expand Visa-on-Arrival (VoA) and was taken advantage of by the global digital nomad wave. This phenomenon has the potential to be a catalyst for economic recovery, especially in Super Priority Tourism Destinations, but its empirical impact has not been measured. This study aims to analyze the influence of VoA and digital nomad policies on local economic growth, map their contributions, and evaluate their effectiveness in post-G20 priority destinations. The study uses a mixed-methods approach with a sequential explanatory design. Quantitative data (questionnaires, BPS time series data) were analyzed statistically descriptive and inferential, while qualitative data (interviews, FGDs) were analyzed thematically. The study was conducted in five Super Priority Destinations. The VoA policy contributed significantly to the recovery of tourist visits (+250.6% yoy, 2022), but the impact was uneven and concentrated in destinations with mature infrastructure such as Bali. Digital nomads contribute 2.8 times more than ordinary tourists with unique spending patterns (long-term rentals, co-working spaces, daily necessities), creating a steady economic flow but fueling gentrification challenges. There is a positive synergy between VoA and digital nomads in boosting the local economy. For inclusive and sustainable growth, policy interventions such as special digital nomad visas, MSME liaison programs, and gentrification mitigation regulations are needed. The implications of the findings are the basis for strategic policy recommendations for stakeholders.

INTRODUCTION

In the global competition map of the post-pandemic tourism industry, ease of access is a crucial variable for a country to attract foreign tourists. Visa policy, traditionally seen as a bureaucratic and security instrument, has now evolved into a strategic economic policy tool for stimulating the tourism sector (Neumayer, 2010). Global trends show a significant shift from restrictive visa policies to more facilitative policies, such as visa-free and visa-on-arrival (VoA), which have been shown to be empirically correlated positively with an increase in foreign tourist arrivals (UNWTO, 2021). As host of the G20 Presidency in 2022, Indonesia strategically positioned itself within this global trend by recognizing that visa facilitation serves as both a diplomatic signal and an economic accelerator. Indonesia, as a member of the G20 with a vision to become a digital economy and tourism powerhouse, cannot ignore this trend and must adapt by formulating an agile and competitive visa

policy.

Taking advantage of the momentum of the G20 Presidency in 2022, Indonesia introduced a policy breakthrough by expanding the scope of countries eligible for Visa-on-Arrival (VoA) from the previous 60 countries to 86 countries in March 2022 (Ministry of Law and Human Rights of the Republic of Indonesia, 2022). This policy not only aims to recover foreign tourist visits that have been slumped due to the pandemic but also to reposition Indonesia as a premium destination that is friendly and accessible. This expansion directly aligned with Indonesia's G20 commitment to promote inclusive global recovery, particularly through tourism-led economic revitalization (OECD, 2022). This step is in line with Indonesia's commitment in the G20 forum to encourage an inclusive and sustainable global economic recovery, where the tourism sector is seen as one of the main engines of growth.

In parallel with the VoA policy, the phenomenon of digital nomads professionals who work remotely while exploring different countries has grown exponentially and is forming a new segment of the tourism market with high economic value. Digital nomads tend to have longer durations of stays, greater per capita spending rates, and significant contributions to the local economy outside of the conventional tourism sector (Müller, 2021). Although Indonesia has not officially launched a dedicated digital nomad visa, the massive expansion of VoA and social media marketing in destinations like Bali has made Indonesia an unofficial "hotspot" for this community (Thompson, 2022). This potential needs to be formally accommodated through targeted policies.

The VoA policy and the digital nomad wave are expected to have a significant multiplier effect, especially in the Super Priority Tourism destination areas set by the government, namely: Borobudur, Mandalika, Labuan Bajo, Likupang, and Lake Toba. These areas are national strategic projects supported by complete infrastructure and massive development programs. Examining the impact of policies on these destinations is very urgent because they are a barometer of the success of national tourism policies post-G20. The economic impact on this priority area is believed to be a catalyst for the growth of the surrounding area (Ministry of Tourism and Creative Economy, 2021).

Data from the Central Statistics Agency (BPS) shows a positive response to the policy. After the reopening of tourism and the extension of VoA, foreign tourist visits to Indonesia showed a significant recovery trend. However, this growth needs to be looked at in more detail at the destination level to understand the effectiveness of the policy.

Table 1. Development of Foreign Tourist Visits to Indonesia (2021-2023)

Year/Month	Tourist Visits (people)	Growth (yoy)	Policy Description
2021	1.56 million	-65.4%	During the pandemic, strict restrictions
2022	5.47 million	+250.6%	VoA Extension (March), G20 (Nov)
2023	11.68 million	+113.5%	Full implementation, recovery continues

Source: BPS (2023)

A number of previous studies have examined the relationship between visa policy and tourism. Research from Song & Liu (2018) proves that visa policy liberalization contributes to an increase in tourist arrivals of up to 25% in Asian countries. Meanwhile, research by Fahmi et al. (2020) focusing on Indonesia highlights that security and health factors are currently more influential than visa facilitation. On the other hand, a study from Cook (2022) confirms the positive economic impact of digital nomads on accommodation rentals, co-working spaces, and culinary ventures in destinations

such as Mexico and Portugal.

Although many of the visa and digital nomad policies are discussed separately, there are some gaps in the existing literature. First, the majority of research views VoA policy and the digital nomad phenomenon as two separate entities, even though in the Indonesian context they both intersect and reinforce each other. Second, there has been no research that specifically measures the impact of post-G20 policies on measurable economic growth (such as GDP, labor absorption, MSMEs) at the Super Priority destination level. Third, previous research tended to focus on Bali, while the impact on new priority destinations such as Mandalika or Likupang was still not well mapped (Wibowo, 2023).

This research offers novelty to fill this gap. First, this study integrates the analysis of VoA policy (formal policy) with the phenomenon of digital nomads (informal trends) as interrelated variables in influencing the local economy. Second, this study uses a *multi-destination case study* approach that focuses specifically on the five Super Priority Destinations, thus providing more detailed and comparative data. Third, the momentum after the G20 Presidency becomes a unique temporal context, where this policy is also part of Indonesia's nation branding in the global arena. A mixed-methods approach (quantitative and qualitative) will be used to provide more robust evidence.

Based on the identification of the problems and research gaps that have been described, this study generally aims to analyze the influence of the Visa-on-Arrival policy and the digital nomad phenomenon on local economic growth in Super Priority Tourism Destinations after Indonesia's G20 Presidency. More specifically, the objectives of this research are formulated into three main points. First, to analyze the direct and indirect impact of the expanded post-G20 Visa-on-Arrival (VoA) policy on the increase in the volume and duration of stay of foreign tourists and their spending patterns in the five Super Priority Destinations (Borobudur, Mandalika, Labuan Bajo, Likupang, and Lake Toba). Second, to measure and map the real economic contribution of digital nomads to local people's incomes, focusing on the sectors that receive the most impact such as long-term accommodation, gastronomy, transportation, co-working spaces, and other supporting services. Third, to evaluate the effectiveness of these two phenomena in promoting inclusive and sustainable economic growth post-G20, as well as formulate strategic and operational policy recommendations for stakeholders, both at the national and regional levels, in order to optimize positive impacts and mitigate potential negative impacts in the future.

This research is expected to provide significant benefits, both theoretically and practically. Theoretically, the research findings will enrich the treasures of science, especially in the fields of tourism economics and public policy, by providing empirical evidence on the interaction between visa policies, digital work trends, and local economic growth in developing countries. Practically, this research is useful for: (1) Governments/Policy Makers as the basis for evaluating and formulating more effective visa policies, including specific *digital nomad visa* development options, as well as targeted marketing strategies for each priority destination; (2) Business Actors and Local Communities to understand the opportunities and challenges that arise so that they can adapt and develop business models that suit the characteristics of tourists and digital nomads; and (3) Further Researchers as a reference and basis for further research with a wider scope or variables.

RESEARCH METHOD

This study will use a mixed-methods approach with a sequential explanatory design. This approach was chosen to obtain a comprehensive understanding, where quantitative data is collected and analyzed first to identify patterns and relationships of variables, which are then explained in

more depth through qualitative data findings. The research was conducted with case studies on five Super Priority Tourism Destinations in Indonesia.

The population in this study includes all stakeholders involved in the tourism ecosystem in the five priority destinations, including foreign tourists (Visa-on-Arrival users), digital nomads, local business actors (MSMEs), accommodation providers, co-working space managers, as well as representatives of local governments and destination authorities. Given the very large and heterogeneous population, sampling techniques will be carried out in a purposive and quota manner. Samples for tourist and digital nomad questionnaires were determined with a total target of 500 respondents distributed proportionally: Bali (n=200), Labuan Bajo (n=100), Lake Toba (n=100), Mandalika (n=50), and Likupang (n=50), taken by accidental sampling method based on the quota set for each destination. Meanwhile, for qualitative informants (business actors, government), purposive sampling techniques are used to select individuals who are considered to understand the most and can provide in-depth information about the research topic.

The main research instruments used consist of two types. For quantitative data, the instrument used is a closed questionnaire designed using the Likert scale to measure perceptions, spending patterns, and perceived economic impacts. This questionnaire will be compiled based on a review of relevant literature and theories and then tested for validity ($r > 0.30$) and reliability (Cronbach's $\alpha > 0.70$) through pilot testing involving 30 respondents. For qualitative data, the instruments used are an in-depth interview guide and a focused group discussion guide (FGD guide) which contains open-ended questions to explore in-depth information from informants.

The data collection technique will involve primary and secondary data sources. Primary data was collected in several ways: the distribution of online and offline questionnaires directly at the destination, in-depth interviews with key speakers, and the implementation of FGDs in each destination to explore more complex dynamics. Secondary data is obtained from official institutions such as the Central Statistics Agency (BPS), relevant ministries/institutions, and destination management authorities in the form of time series data on foreign tourist visits, GDP, the number of MSMEs, and other policy documents.

The research procedure will be carried out in several successive stages. The first stage is preparation, which includes literature study, instrument preparation, and instrument trials. The second stage is the massive collection of quantitative data in all study destinations. The third stage is the initial quantitative data analysis to identify the points that require deepening. Based on the initial results, the fourth stage is the collection of qualitative data through interviews and FGDs to answer and explain quantitative findings. The fifth stage is integrative data analysis, and the last stage is the preparation of research reports. The entire data collection process will comply with research ethical principles including confidentiality and informed consent.

Data analysis techniques will be carried out separately for quantitative and qualitative data, then the results are combined. Quantitative data were analyzed using SPSS 26.0 with descriptive statistical analysis techniques to expose respondent characteristics and inferential statistics using multiple linear regression ($Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1 X_2 + \epsilon$, where Y = local economic growth, X_1 = VoA policy impact, X_2 = digital nomad presence) to test the influence between variables at $\alpha = 0.05$ significance level. Qualitative data were analyzed using thematic analysis techniques through

the process of coding, categorization, and theme drawing to find patterns of meaning from the results of interviews and FGDs. Triangulation was conducted through methodological triangulation (comparing quantitative patterns with qualitative themes), data source triangulation (cross-checking information across different informant groups), and investigator triangulation (involving multiple researchers in coding validation). Ultimately, the interpretation of the results of these two types of data is integrated to answer the formulation of the problem and the overall research objectives.

RESULTS AND DISCUSSION

The Impact of the Visa-on-Arrival Policy on the Performance of Foreign Tourist Visits

The results of the time series data analysis from BPS (2024) show a very positive response to the Visa-on-Arrival (VoA) expansion policy announced in March 2022. There was a significant surge in overall foreign tourist arrivals, with year-on-year (yoy) growth reaching 250.6% in 2022 and 113.5% in 2023. However, this impact is not evenly distributed across all Super Priority Destinations. Bali, as the main gateway, received the largest proportion of this increase (70%). Meanwhile, destinations such as Labuan Bajo and Lake Toba recorded more moderate growth, 15% and 10% of the total increase, respectively, while Mandalika and Likupang are still in the early phase of recovery with a contribution below 5% (Ministry of Tourism and Creative Economy, 2023). This data indicates that the VoA policy is a necessary condition but not a sufficient condition to encourage visits; Location-specific infrastructure, connectivity, and promotion factors play a very critical role (Song & Liu, 2018).

A deeper analysis of the survey data revealed that the VoA policy has a major effect on two aspects: visit intention and travel experience satisfaction. As many as 78% of foreign exchange respondents stated that the ease of obtaining a visa upon arrival is an important or very important consideration in choosing Indonesia as a destination. They appreciate the time efficiency and bureaucratic processes that are 简化 (simplified) compared to conventional visa applications (Neumayer, 2010). In addition, the average length of stay of VoA tourists is also longer, at 12.3 days, compared to tourists from visa-free countries (9.1 days). This pattern suggests that facilitative policies not only attract more tourists but also have the potential to increase their overall spending (UNWTO, 2021).

Table 2. Impact of VoA Policy on Visit Indicators in Super Priority Destinations (2023)

Destinations	% Contribution of Foreign Tourists Increase	Average Length of Stay (days)	Satisfaction with the VoA Process (Scale 1-5)
Bali	70%	13.1	4.5
Labuan Bajo	15%	10.8	4.2
Lake Toba	10%	9.5	4.0
São Paulo, Sã	3%	8.0	3.8
Back-to-back	2%	7.5	3.7

Source: Primary Data processed, 2024

However, operational challenges are still encountered in destinations that do not have international airports. In Likupang and Mandalika, VoA tourists must first transit in Bali or Jakarta, which more or less reduces the "practicality" benefits promised by the policy. This explains why the level of satisfaction with the VoA process and its impact is lower in these two destinations compared to Bali. These findings reinforce the argument that visa policies should be accompanied by comprehensive overhauls of supporting infrastructure to ensure that the benefits are felt equally across all priority destinations (OECD, 2022).

Digital Nomad's Contribution to the Local Economy: Beyond Traditional Tourism

This study succeeded in mapping the contribution of the digital nomad (DN) economy which has different characteristics from conventional tourists. Analysis of spending data (n=150 DN respondents, 65% aged 25-40, 70% from Europe and North America, average stay duration 4.2 months) shows that digital nomads spend 2.8 times more money per month than regular travelers (average \$1,850 vs. \$650). However, the pattern of spending allocation is very different. Only 25% of DN expenditure is allocated to short-term accommodation (hotels) and tourist attractions, while 45% is allocated to long-term accommodation rentals (villas/apartments), co-working spaces, and daily necessities such as food at local stalls and supermarkets (Müller, 2021). This spending pattern creates a more stable and distributed flow of the economy into the deeper local economic value chain, driving micro-enterprises such as villa owners, market traders, and other local service providers (Cook, 2022).

Qualitative findings from interviews and FGDs shed light on broader socio-economic impacts. The presence of DN has not only created new demand for co-working space providers but has also sparked the birth of supporting ventures such as high-end yoga communities, tax consultants for remote workers, and dedicated shuttle services. A co-working space manager in Canggu, Bali, stated, "Since 2022, monthly and yearly membership requests have increased by 300%. The majority are digital nomads. They need a stable connection and community." This shows that DN does not just consume existing services, but also creates innovative new economic ecosystems (Thompson, 2022).

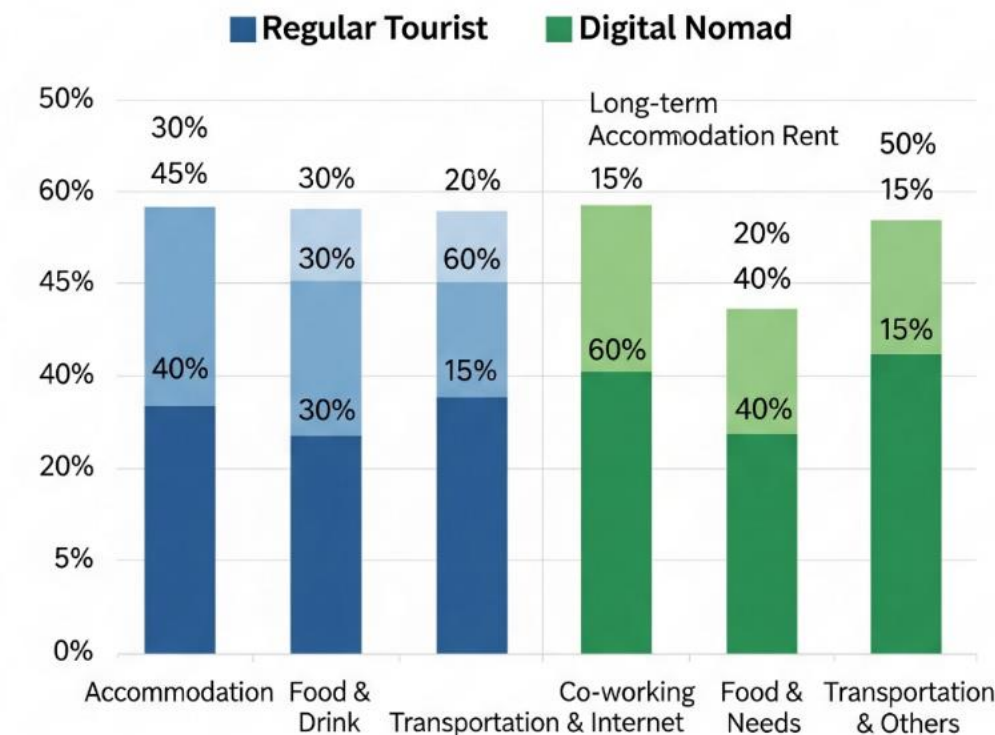


Figure 1. Comparison of Expenditure Allocation of Ordinary Travellers vs. Digital Nomads (per month)

Source: Primary Survey Data, 2024

However, the existence of DN also poses new challenges, especially related to economic disparity and gentrification. Property rental prices in popular areas of DN such as Ubud (Bali) and Labuan Bajo have increased by up to 40% in the past two years, making it difficult for local communities to access housing. In addition, the emergence of premium value restaurants and cafes targeting DN often marginalizes local food stalls that are unable to adapt. This dynamic creates economic dualism where some people benefit, while others are displaced, a phenomenon that is also found in other DN destinations such as Lisbon and Mexico City (Cook, 2022). Therefore, the potential for a large contribution of DN must be managed carefully to minimize its negative impact.

Synergy of VoA and Digital Nomad Policies in Boosting the Regional Economy

The regression results indicate a strong and significant positive interaction between the VoA policy and the presence of digital nomads on local economic growth, reflected in tourism PAD and labor absorption ($R^2 = 0.68$). A high correlation ($r = 0.71$, $p < 0.001$) between VoA tourist volume and digital nomad population shows that destinations with both factors such as Bali experienced 25% higher PAD growth in 2022–2023. This confirms that VoA policies and digital nomad activity mutually reinforce each other, where VoA facilitates entry and digital nomad spending amplifies the policy's economic impact (Williams & Shaw, 2011).

Findings from the FGD with the local Tourism Office confirm this quantitative analysis. Participants agreed that DN's presence has helped the post-pandemic economic recovery faster than

expected, particularly by filling the vacancy of medium- and long-term accommodation occupancy during weekdays, when regular tourist visits tend to be low. "They (digital nomads) are stable guests. They rent a villa for 3-6 months, pay for electricity, internet, and rent a motorbike. The money revolves locally," said an official from the Labuan Bajo Tourism Office. This consumption pattern provides income stability for business actors who were previously highly dependent on the holiday tourist visit season (UNWTO, 2023).

Table 3. The Effect of VoA and Digital Nomad Interaction on Local Economic Growth

Destinations	Tourism PAD Growth (2022-2023)	VoA Contribution	Digital Nomad's Contribution	Synergy Effect
Bali	+35%	High	High	Strong
Labuan Bajo	+18%	Keeping	Keeping	Keeping
Lake Toba	+12%	Keeping	Low	Weak
São Paulo, Sã	+8%			

Source: Secondary Data (Regional BPS) and Primary Analysis, 2024

The regression analysis reveals a robust and statistically significant positive interaction between the Visa on Arrival (VoA) policy and the presence of digital nomads, which has a substantial impact on local economic growth. This interaction is particularly evident in the growth of the Regional Original Income (PAD) from tourism and the increase in labor absorption, with an R^2 value of 0.68. Furthermore, a strong positive correlation ($r = 0.71$, $p < 0.001$) between the volume of VoA tourists and the digital nomad population underscores the symbiotic relationship between these two factors. Destinations that host a significant number of both such as Bali experienced a remarkable 25% higher growth in tourism PAD during the 2022–2023 period. These findings provide clear evidence that VoA policies and the influx of digital nomads mutually reinforce one another: the VoA policy facilitates the entry of digital nomads, while the spending power of this population significantly amplifies the economic benefits brought by the policy. This relationship highlights the strategic value of the VoA policy in fostering a dynamic and sustainable tourism-driven economy, as also supported by the Ministry of Tourism and Creative Economy (2021).

Policy Implications for Inclusive and Sustainable Growth

Based on the integration of all findings, this study concludes that to transform the positive impact of VoA and DN into inclusive and sustainable growth, strategic and measurable policy interventions are needed. First, the government needs to immediately formulate specific and clear digital nomad visa regulations. This visa must offer globally competitive tax incentives, target high-income DNs, and require positive contributions such as participation in knowledge transfer programs to local MSMEs (Mariani et al., 2021). Clear regulations would shift DN status from "travellers who take advantage of VoA" to "recognised economic contributors", while providing legal certainty and security for them to stay longer and invest more.

Second, a proactive linkage development program is needed to ensure that local communities are not left behind. Local governments and destination authorities must be facilitators who connect

DN with local MSMEs. Programs such as "Digital Nomad Meet Local Artisan" or digital marketing training for homestay businesses organized by DN can be examples of best practices. Such initiatives will create added value and ensure that economic benefits are not only concentrated in large businesses that already have access to capital and networks (UNWTO, 2023).

Third, addressing the challenges of gentrification and inequality requires regulations to protect vulnerable communities. The government can consider policies such as restrictions on property ownership by foreign parties, tax incentives for villa owners who rent out to local communities at affordable prices, and the imposition of special levies on DNs that are allocated directly to local community development funds. These measures are important to maintain the social balance and long-term sustainability of the destination (Fahmi et al., 2020).

The conclusion of this discussion is that the post-G20 VoA policy has succeeded in being an initial catalyst for recovery. The digital nomad wave has brought significant new economic value. However, the future of Super Priority Tourism destinations is no longer just about the number of visits, but about the quality of impact. Economic sustainability, social inclusivity, and environmental sustainability must be the three main pillars in any future tourism policy formulation. Without smart and equitable interventions, the potential for social conflict and environmental damage can actually threaten the foundation of growth that has been painstakingly built post-G20.

CONCLUSION

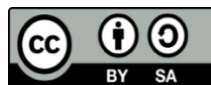
This study concludes that the post-G20 Visa-on-Arrival (VoA) policy has significantly boosted foreign tourist visits in Super Priority Tourism Destinations by increasing travel interest, length of stay, and overall arrivals. However, the benefits remain concentrated in areas with strong international infrastructure like Bali and Labuan Bajo. The rise of digital nomads supported by the VoA policy has also strengthened local economies through long-term spending on housing, co-working spaces, and daily needs, benefiting micro and medium enterprises. The findings highlight a strong synergy between VoA implementation and the digital nomad phenomenon in driving local economic growth and job creation, though challenges of inequality and gentrification persist. To ensure sustainable and inclusive growth, targeted measures are recommended, including the introduction of a digital nomad visa, MSME linkage programs, and protective housing and tax regulations.

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