

BEYOND TOURISM: HOW DIGITAL NOMADS DRIVE STRONGER LOCAL BUSINESS GROWTH IN URBAN BALI?

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Abstract

Background: Digital nomadism in urban areas in Bali becomes more and more defined as the practice of nomads being economically embedded within the economy rather than tourists. **Objective:** In this regard, this research seeks to investigate the influence of digital nomadism on local business development in the case of the city of Bali by looking into how nomad presence translates into economic gains for the local community. **Method:** By adopting an explanatory design with a quantitative focus, data from a sample of 150 micro, small and medium enterprises (MSMEs) operating in Canggu, Ubud, and Denpasar were collected. OLS regression analysis is used in order to evaluate the influence of variables such as digital nomad intensity, professional interaction quality, business adaptation strategy, and customer engagement on local business growth. **Results:** Results suggest that digital nomad intensity has a positive impact on business growth, with customer engagement as a factor having the highest significance. Most importantly, the interaction effect shows that the economic influence is greatly enhanced through high-quality interactions and a well-adapted digitalization strategy, providing better results than tourist inflow. **Conclusion:** Relationship building and development of the organization's internal competencies become key aspects of the economic translation of digital nomadism.

Keywords: digital nomad; local business; MSMEs; tourism; tourist

1. Introduction

The emergence of digital nomadism can be considered another crucial trend influencing local economies, more precisely those of urban areas like Bali. It represents a lifestyle associated with remote working using digital tools while traveling. The attraction of digital nomads to Bali is explained by its picturesque nature, affordability of costs, and well-developed infrastructure of tourism (Noviarini & Samputra, 2024). Current evidence suggests that the workcation phenomenon warrants more thorough investigation due to

a lack of sufficient scholarly attention. Though traditional tourism used to be an important element of the local economy, its integration with digital nomads brings a number of new opportunities and problems that must be addressed. In particular, they pose some challenges and provide some prospects for local businesses, especially micro-, small, and medium enterprises (Qosim et al., 2025; Hatifa et al., 2024).

At present, the existing literature treats digital nomadism as a part of tourism. As a result, its economic and social impact on the business landscape of a locality is usually underestimated. Qualitative analysis shows that treating nomads as tourists does not take into account the peculiarity of the way they spend money, choose places to live, and can share knowledge with the locals (Christiansen et al., 2023). Recent studies focus on studying the dynamics of tourist activities when the influence of their changes throughout the year becomes the main point of discussion (Zvaigzne et al., 2022). Digital nomads' aggregation demonstrates another pattern when people interact with the economy constantly and do not just visit it temporarily. Many scholars have studied the economic role of tourism in urban environments and the relationship between its revenues and economic development (Braun, 2022; Lee & Syah, 2018); however, the economic influence of digital nomads on MSMEs requires further research.

Studies analyzing the economic effects associated with digital nomadism seem to converge toward its ability to enhance local economies rather than weaken them (Sciuva, 2025). Due to their unique lifestyle, digital nomads play an essential role in urban innovation ecosystems as they tend to create professional networks within the local context (Orel, 2019). Research concerning coworking spaces and basecamp villages shows how such ecosystems function through established professional networks, organized events, and loyalty to coworking spaces. However, studies also note some challenges, such as the lack of proper coordination needed for incorporating nomads into the local digital ecosystem and legal uncertainties that prevent further integration.

Furthermore, micro, small, and medium-sized enterprises (MSMEs) can succeed if the environment is enhanced by the presence of digital nomads, as companies usually adapt their strategies to meet the particularities of this demographic (Qosim et al., 2025). Adaptations implemented by businesses include the adoption of technologies for marketing campaigns and service provision, thereby aligning them more closely with the expectations of digital nomads and leading to more successful business strategies (Poulaki et al., 2023). These enterprises form a crucial backbone of Bali's economy, as they often provide better employment opportunities than large companies (Antara & Sumarniasih, 2017). Research proves that businesses in this sector can adapt to changes in consumer behavior associated with these new customers and their specific service preferences (Satifa & Widyastuti, 2023). In fact, companies that understand how digital nomads behave as consumers are positioned to achieve higher revenues (Riskyan & Ervianty, 2019).

2. Literature Review

2.1. Digital Nomadism vs. Mass Tourism: A Theoretical Distinction

In comparison to conventional mass tourism, theoretical distinctions can be identified between the two phenomena since digital nomadism integrates work, leisure, and travel within its complex nature and can be understood as an approach to life that offers "holistic freedom" (Reichenberger, 2017). Conventional tourists, in contrast, are described mostly as being engaged in transient consumption as well as the act of temporary "escaping" from the routine of their work-related responsibilities. In turn, digital nomads represent themselves as "location-independent professionals" whose objective is to remain productive and fully engaged with the location at hand (Cook, 2020). Therefore, it would be inappropriate to label digital nomads residing in Bali as long-stay tourists; instead, they should be analyzed using the notion of "lifestyle migration" suggested by Benson and O'Reilly (2009) that describes the relocation of relatively wealthy people to areas with a better quality of life. Thus, digital nomads in Bali create a lifestyle based on rethinking their daily working practices in a novel aesthetic environment.

The above-mentioned differences have an effect on both patterns of consumption and ways of interacting with the environment. As argued by Urry (2002), typical tourist behavior relies on what the author named the "tourist gaze" – the search for something extraordinary to satisfy one's needs of escaping the reality and experiencing extraordinary emotions. As a result, traditional tourists prefer such activities as visiting tourist attractions, seeking for "authentic" experiences, as well as entertaining events. Digital nomads, in contrast, have the "pragmatic livability gaze" as they prioritize infrastructural resources over spectacularity of the place. The process of consumption practiced by digital nomads focuses on high-speed internet, co-working spaces, gym access, and healthy food thus turning them into "short-term locals" (Mieli & Zillinger, 2024).

Apart from the abovementioned factors, digital nomads construct an innovative community model that combines digital and physical elements resulting in a different type of economic footprint (Thompson, 2019). Mass tourism usually implies high volume but low frequency of transactions related to tourism (e.g., buying tickets, souvenirs, accommodation). On the contrary, digital nomads interact frequently with local businesses because they are more economically embedded in the location thus spending their money in local housing market, co-living spaces, and services offered by business entities (Hannonen et al., 2023).

2.2. *Economic Embeddedness and Urban Innovation Ecosystems*

In order to provide a complete picture of how nomadic travelers impact the local economy, the study goes beyond spending analysis by using the theory of relational embeddedness. As explained by Granovetter (1985), economic behavior should be considered deeply embedded in social networks of relationships. Value created in the urban economy of Bali emerges from not just the economic transactions performed but also the strength and quality of social relationships between mobile professionals and local business owners (Christiansen et al., 2023). Unlike the disembodied position occupied by mass tourists, digital nomads tend to seek local legitimacy through building relationships based on trust and reciprocity with local entrepreneurs.

This type of relationship transforms nomad hubs like Canggu and Ubud from typical tourist hotspots into "urban innovation ecosystems" (Orel, 2019). Coworking spaces and nomad-oriented cafes serve as nodal points in those ecosystems through which knowledge spillovers are facilitated. According to Jiwasiddi et al. (2024), the integration of digital nomads into local networks leads to distinctive activities that do not normally occur in the presence of conventional tourists. Namely, nomads contribute to the flow of tacit knowledge from mobile professionals to local MSME owners in terms of insights on current trends in the global market, digital marketing practices, and best approaches to service design. From the perspective of the theory put forward by Florida (2014), nomads act as members of the Creative Class, thus triggering regional economic revitalization.

On the supplier side, nomadic travelers force destinations to evolve as well. Mobile professionals become "lead users," driving the development of services that ensure proper operation and functionality rather than merely enjoyment and relaxation (Hannonen et al., 2023). Thus, for example, nomads make it necessary for the local establishments to improve internet connection speed and reliability, provide comfortable furniture, and facilitate digital payments (Kozak et al., 2024). As a result, value creation becomes a co-creation phenomenon, since the economic contributions made by nomadic travelers include provision of market knowledge, and local suppliers change the service logic accordingly.

2.3. *MSME Adaptation and Dynamic Capabilities*

As for why the opportunity presented by the digital nomad phenomenon can be effectively seized by the local companies, it can be understood using the dynamic capabilities theoretical perspective (Rizana et al., 2025). This model was first proposed by Teece (2007), who argued that in the rapidly changing modern business world, a sustainable competitive advantage is created through the unique capability of the organization to coordinate its resources and not the resources themselves. This process, according to Teece, consists of three micro-foundations: sensing, seizing, and transforming. In general, while traditional tourism research focuses on static efficiency, in the case of digital nomads, MSMEs have to prove their agility both on the level of sensing, seizing, and transforming (Lei et al., 2023).

Specifically, in the context of the urban economy of Bali, sensing is the capability of the local entrepreneurs to distinguish between digital nomads and regular tourists, since nomads prefer productivity-oriented infrastructure to entertainment-related infrastructure (Hannonen et al., 2023). The next step – seizing – involves concrete adaptation strategies of businesses, such as switching to digital payments systems (e.g., QRIS, crypto-wallets), the provision of fast fiber-optic internet connection, and arranging ergonomic working spaces alongside the hotel's main services (Kc & Triandafyllidou, 2025). Finally, transforming refers to an essential transformation of the business' service paradigm from transactional to relational one, which sometimes requires learning new English-language professional communication skills by employees (Poulaki et al., 2023).

There is some empirical evidence that Indonesian MSMEs that implement these strategies adaptively become more resilient and develop diverse sources of income especially in non-tourism seasons (Suryawati & Nurdana, 2021). Nevertheless, the current literature suffers from lack of a key element in studying digital nomads' adaptation: although adaptation is frequently viewed as an outcome, its role as a mechanism is underdeveloped. In other words, there is a scarcity of research exploring the interactive nature of the phenomenon in question. It can be considered as a missing piece of the puzzle, and the current research seeks to fill the gap by empirically testing digital adaptation as a necessary precondition/moderator (Braun, 2022; Teece, 2007).

3. Method

This study employs a quantitative research approach in order to examine the effect that digital nomads have on business development in Bali. This research project considers digital nomads to be mobile professionals who are part of the local business environment, thus going beyond traditional measures of tourism impacts.

3.1. Sample / Participants

The study involves local MSMEs that are based at well-known destinations of digital nomads in Bali, such as Canggu, Ubud, and Denpasar. For this reason, purposive sampling was used to identify the participants. It was determined that eligible participants would have at least two years of business experience and had transacted with foreign clients during the year prior to the survey.

A sample of around 150 MSMEs participated in this study. The unit of analysis was each MSME as depicted by its owner or manager. From Table 1, it is clear that the biggest sector involved in this study was hospitality, which accounted for 36.67%, whereas 26.67% belonged to the retail sector.

Table 1. Demographic Characteristics of Participating SMEs

Variable	Category	N	%
Business Type	Hospitality	55	36.67
	Retail	40	26.67
	Food and Beverage	25	16.67
	Creative Services	15	10.00
	Other	15	10.00
Years of Operation	Less than 1 year	10	6.67
	1-3 years	30	20.00
	4-6 years	45	30.00
	7-10 years	35	23.33

	More than 10 years	30	20.00
Business Size	Micro (1-10 employees)	60	40.00
	Small (11-50 employees)	50	33.33
	Medium (51-100 employees)	40	26.67
	Denpasar	35	23.33
Location	Ubud	40	26.67
	Canggu	30	20.00
	Seminyak	20	13.33
	Other (Kuta)	25	16.67

Source: Author's (2026)

3.2. Instrument(s)

The key instrument used for gathering data on the research population involved an elaborated questionnaire that would provide details on the peculiarities of the economy associated with the phenomenon under study. All items related to the constructs involved were rated using a five-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). These scales were developed based on previous research on performance and innovation in MSMEs in light of the particularities of the economy of Balinese urban services.

The first variable, that is, LBG, was measured through revenue growth, financial stability, the expansion of the client base, and the long-term sustainability of business operations. The independent variables were DNI, expressed as a share of clients that were digital nomads, PIQ, assessed as involvement in common projects or collaboration with them, BAS, defined in terms of implementing new strategies including digital payments system and other changes, and CENI, expressed as the management of online reviews.

Several control variables have been added to the research model, including the location of the enterprise, its age, and size. To specifically address the effect of digital nomads as opposed to general tourism, the tourist volume was introduced as a control variable as well.

3.3. Data collection and analysis

A cross-sectional survey design was used to collect data on the interaction between digital nomads and the local businesses. These data were obtained using a questionnaire survey method. Specifically, the use of the data involved using both direct surveys where face-to-face interviews with owners of businesses in Canggu, Ubud, and Denpasar were conducted and online surveys that covered a wider demographic. Before conducting these surveys, screening was done among potential respondents in order to include those who meet the criterion set. In particular, only those firms which had been operating for more

than two years and have recently received foreign customers were included in the study. This is necessary in order to have adequate data about the MSMEs in Bali's urban service economy.

The empirical work was done using OLS regression in STATA MP 17. Three models were specified in the analysis process.

3.3.1 Direct Effects Model

The initial model estimates the direct effects of the digital nomad-related variables on local business growth. The equation of regression is stated as follows:

$$LBG_i = \beta_0 + \beta_1 DNI_i + \beta_2 PIQ_i + \beta_3 BAS_i + \beta_4 CENI_i + \gamma Z_i + \varepsilon_i$$

Where LBG stands for local business growth for firm i ; DNI stands for digital nomad; PIQ refers to professional interaction quality; BAS stands for business adaptation strategy; CENI stands for customer engagement and network integration; Z stands for the vector of control variables; and ε_i is the error term.

3.3.2 Comparative Tourism Nomad-Model

In order to make it possible to compare the economic contribution of digital nomads with conventional tourism demand, the model can be rewritten as:

$$LBG_i = \beta_0 + \beta_1 DNI_i + \beta_2 TouristVOL_i + \beta_3 PIQ_i + \beta_4 (DNI_i \times PIQ_i) + \gamma Z_i + \varepsilon_i$$

The main advantage of this specification is that it allows assessing the amplification effect of professional interactions on digital nomads compared to tourist volume.

3.3.3 Adaptation-Focused Model

A modification to the above regression equation that helps distinguish between the economics of the digital nomad phenomenon and traditional tourism demand takes account of the tourist count explicitly as follows:

$$LBG_i = \beta_0 + \beta_1 DNI_i + \beta_2 PIQ_i + \beta_3 BAS_i + \beta_4 (DNI_i \times BAS_i) + \gamma Z_i + \varepsilon_i$$

In the above regression model, the interaction effect of DNI_i and BAS_i reflects the benefits that organizations that have adapted digital payment solutions can obtain from exposure to digital nomads and thus represents complementarity between external exposure and organizational capability development.

The preliminary checks undertaken before the statistical analysis were those for validity, multicollinearity, and heteroskedasticity of data. The mean value of VIF is 1.75, implying the absence of any significant multicollinearity problem. For heteroskedasticity, the p-value is found to be 0.1162.

4. Results

The results of statistical analysis demonstrate that the specified models have good explanatory capabilities in predicting local business growth. Further presentation is

organized in the following way: model diagnostic and fit; direct effects; interaction analysis.

4.1. Model Diagnostic and Fit

According to the results, the Direct Effects Model explains up to 62.1% of variance in local business growth ($R^2 = 0.6214$), with 59.99% remaining after adjustment. The model is statistically significant ($F(8, 141) = 28.94, p < 0.001$). It is reasonable to assume that the set of predictors included into the model explains local business growth substantially.

Table 2. Model Fit Summary

MODEL FIT STATISTICS	
Sample size (N)	150
Number of predictors	8
Degrees of freedom (Model)	8
Degrees of freedom (Residual)	141
R-squared	0.6214
Adjusted R-squared	0.5999
Root Mean Squared Error (RMSE)	0.4489
F-statistic	$F(8, 141) = 28.94$
Prob > F	0.0000
AIC	192.847
BIC	222.156

Source: Authors, Primary Data Processed (2026)

The tests performed verify the validity of these findings. According to Table 3, the Variance Inflation Factor (VIF) obtained the average value of 1.75, which is far less than the value of 3.0, thus suggesting that there are no problems with multicollinearity. The heteroskedasticity test revealed the value of p at 0.1162, which is greater than the critical value.

Table 3. Multicollinearity and Heteroscedasticity Diagnostics

Variable	VIF	1/VIF
CENI	2.35	0.4255
PIQ	2.18	0.4587
BAS	1.97	0.5076
DNI	1.84	0.5435
Location	1.54	0.6494
Firm_size	1.45	0.6897
Years_operation	1.38	0.7246
Industry_type	1.30	0.7692
Mean VIF	1.75	

Chi2(1) = 2.47

Source: Authors, Primary Data Processed (2026)

The integrity of the estimated model was critically assessed using a post-estimation diagnostics approach that ensures that the Gauss-Markov assumptions were met (Figure 1). At first, it was established that there was no pattern in the residuals vs. fitted graph because of the stochastic nature of their distribution relative to the horizontal axis, which represents the mean zero value. This means that the residuals' linearity assumption holds and that the model can be considered appropriately specified. The Normal Q-Q plot was used to analyze the residuals' distribution properties. According to the empirical quantiles on the Normal Q-Q plot, the distribution of residuals is almost normal because of their proximity to the 45-degree reference line. Although there are small deviations from this line among the extreme quantiles, they can be disregarded considering the relatively large number of cases. In order to confirm the homoscedasticity of errors, the Scale-Location plot was examined because of its horizontal behavior and even distribution of the standardized residuals in respect to fitted values. There were no observations found to have exceeded the 0.5 or 1.0 critical values, implying that there is no impact of outliers with high leverage on the estimated regression coefficients. Together, these results confirm the validity of the estimators and hypothesis testing.

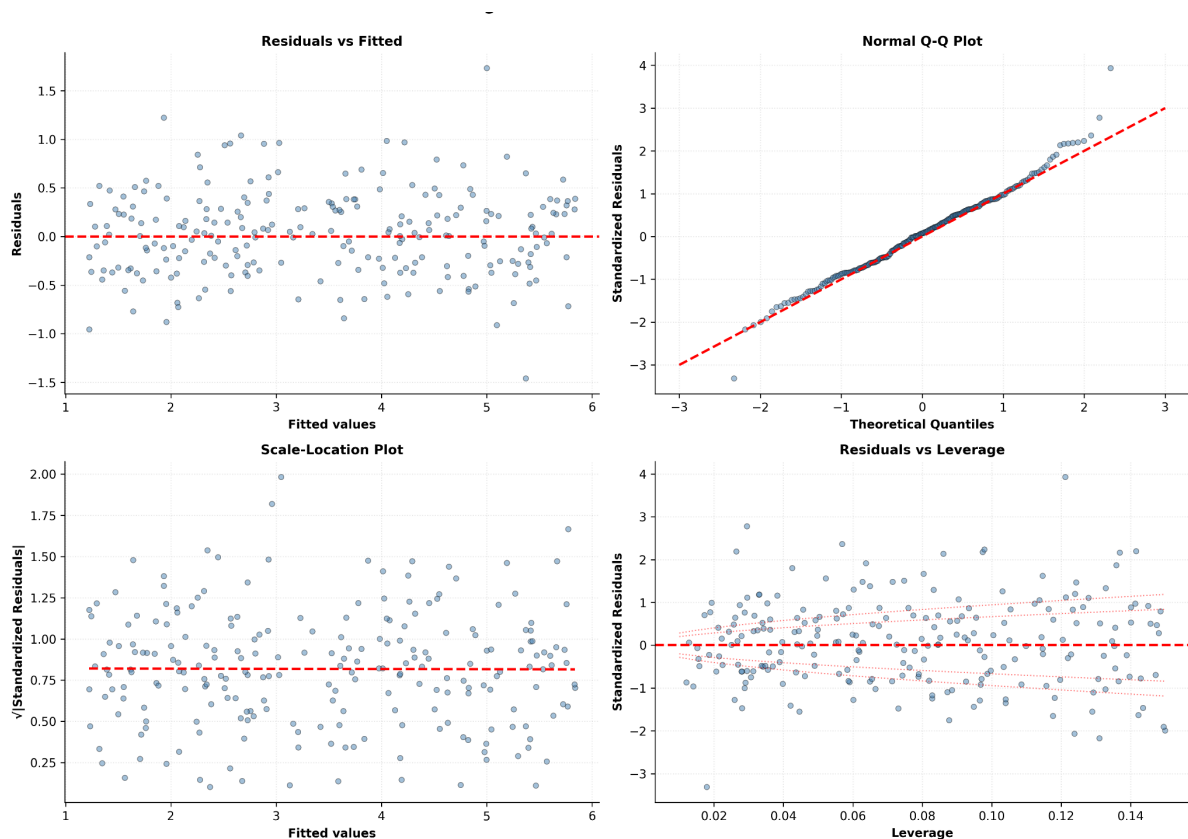


Figure 1. Diagnostic Analysis Plots

Source: Authors, Primary Data Processed (2026)

4.2. *Direct Effects on Local Business Growth*

According to the regression analysis, there are four major drivers of growth in businesses. According to Table 4, the first driver, CENI, had the highest coefficient of prediction ($\beta = 0.512, p < 0.001$). This means that any unit increase in engagement would translate into 0.512 increase in business growth.

The second major predictor was DNI ($\beta = 0.421, p < 0.001$), followed by PIQ ($\beta = 0.356, p < 0.001$). Lastly, there was a positive relation between business adaptation strategies and business growth (BAS, $\beta = 0.289, p < 0.01$).

Table 4. Direct Effect Model Regression Results

LBG	Coef.	Std. Err.	t	p> t	[95% Conf.	Interval]
DNI	0.4210	0.0890	4.73	0.000	0.2460	0.5960
PIQ	0.3560	0.0950	3.75	0.000	0.1690	0.5430
BAS	0.2890	0.1020	2.83	0.005	0.0880	0.4900
CENI	0.5120	0.1070	4.79	0.000	0.3010	0.7230
Firm_size	0.1430	0.0670	2.13	0.034	0.0110	0.2750
Industry_type	0.2870	0.1340	2.14	0.033	0.0230	0.5510
Location	0.1980	0.0910	2.18	0.031	0.0190	0.3770
Years_operation	0.0890	0.0580	1.53	0.126	-0.0250	0.2030
_cons	0.8470	0.3120	2.71	0.007	0.2320	1.4620

Source: Authors, Primary Data Processed (2026)

4.3. *Interaction and Comparative Analysis*

The purpose of distinguishing the effect of the existence of digital nomads from that of tourism as such was achieved by developing a model of interaction (see Table 5). It can be seen that there is a statistically significant association between Digital Nomad Intensity and Professional Interaction Quality ($\beta = 0.264, p = 0.002$). It should be noted that the parameter reflecting the scale of tourism per se was somewhat smaller ($\beta = 0.142$).

Table 5. Comparative Effect Tourist and Digital Nomads

LBG	Coef.	Std. Err.	t	p> t	[95% Conf.	Interval]
DNI	0.3850	0.0880	4.38	0.000	0.2110	0.5590
TouristVOL	0.1420	0.0520	2.73	0.007	0.0390	0.2450
PIQ	0.3180	0.0940	3.38	0.001	0.1320	0.5040
DNI_PIQ	0.2640	0.0850	3.11	0.002	0.0960	0.4320
Firm_size	0.1290	0.0670	1.93	0.056	-0.0040	0.2620
Industry_type	0.2780	0.1340	2.07	0.040	0.0130	0.5430
Location	0.1920	0.0910	2.11	0.037	0.0120	0.3720
Years_operation	0.0840	0.0580	1.45	0.150	-0.0310	0.1990
_cons	0.7650	0.3180	2.41	0.017	0.1370	1.3930

Source: Authors, Primary Data Processed (2026)

Moreover, another interesting point to note in the case of the model based on adaptation strategy (Table 6) is the interaction effect seen between the Digital Nomad Intensity and Business Adaptation Strategies ($\beta = 0.3180$, $p = 0.001$). From the above finding, it becomes clear that the effects of having digital nomads are not equal.

Table 6. Digital Adoption Effect

LBG	Coef.	Std. Err.	t	p> t	[95% Conf.	Interval]
DNI	0.3920	0.0850	4.56	0.000	0.2220	0.5620
PIQ	0.3480	0.0928	3.78	0.000	0.1660	0.5300
BAS	0.2740	0.0980	2.80	0.006	0.0810	0.4670
DNI_BAS	0.3180	0.0950	3.35	0.001	0.1300	0.5060
Firm_size	0.1350	0.0660	2.05	0.042	0.0050	0.2650
Industry_type	0.2830	0.1320	2.14	0.034	0.0220	0.5440
Location	0.1960	0.0890	2.20	0.029	0.0200	0.3720
Years_operation	0.0880	0.0570	1.54	0.126	-0.0250	0.2010
_cons	0.8560	0.3150	2.72	0.007	0.2340	1.4780

Source: Authors, Primary Data Processed (2026)

5. Discussion

The findings obtained through this research confirm the shift from treating digital nomads as tourists who stay for extended periods to recognizing them as a separate group of economically active individuals who interact within the local business environment. According to the study results, the presence of digital nomads matters but what matters even more are the processes involved in their interaction and adaptation.

5.1. *The Shift from Passive Tourism to Relational Engagement*

As the main output of the paper, it should be noted that Customer Engagement and Network Integration (CENI) turned out to be the key predictor of growth among local businesses ($\beta = 0.512$, $p < 0.001$). Statistically speaking, it demonstrates a fundamental transformation of the value creation paradigm used in Bali's urban economy, which implies that economic success in a destination is becoming less dependent on the number of fleeting visitors and more on how well embedded into local relationships it is. In terms of S-D logic developed by Vargo and Lusch in 2004, the change from a typical goods-dominant logic (typical in the case of mass tourism) can be explained. In contrast to the former one, S-D logic states that value is co-produced in interaction, while it cannot be created independently by the provider or destroyed upon consumption.

Specifically, referring to the results, it can be said that digital nomads are resource integrators who combine their competences (such as providing digital feedback, tagging local MSMEs online, using their own professional contacts) with local services. The finding is consistent with previous research conducted by Su et al. (2023) and Li et al. (2021). They suggest that structural embeddedness and strategic network positions matter more for the success of modern tourism ventures than the location or prices.

The positive and statistically significant relationship of DNI can be interpreted as digital nomads being a "low volume, high value" customer type, which impacts destination

services through socialization rather than simply buying something (Hannonen et al., 2023). In opposition to mass tourists whose interaction is transactional, involving anonymity and short periods of time spent at the point of interest, digital nomads are observed to have behaviors similar to those of "short-term locals" (Mieli & Zillinger, 2024). Namely, they form regular habits, go to the same coworking cafes, use local laundry facilities and interact with staff members; hence, building trust and loyalty. Such dynamics lead to the creation of the so-called relational lock-in effect in which economic value created per one nomad is much higher than that of an ordinary tourist, despite the lower volume of arrivals overall.

This tendency is demonstrated in a particular urban case of Bali in which migration waves related to digital nomads' activities were associated with specific market trends such as increasing demands for long-term rentals and subscriptions (Astuti et al., 2025). In general, the above evidence proves the thesis according to which nomads' economic value cannot be estimated from the perspective of traditional tourists; enterprises lacking interaction with customers might miss important benefits.

5.2. *Professional Interaction as a Value Multiplier*

The empirical results from the analysis conducted for the study reveal the presence of a significant interaction effect, where the effect of digital nomad intensity on economic outcomes is greatly strengthened when coupled with high Professional Interaction Quality (PIQ) (interaction effect, $\beta = 0.264$, $p = 0.002$). The findings thus offer strong validation for the Knowledge Spillover Theory of Entrepreneurship. As explained by Acs et al. (2009), new economic knowledge is usually produced outside firms (in the current case, by digital nomads globally) and goes unutilized until it spills over into firms through direct interaction. In Bali, the digital nomads are more than just sources of foreign capital – they are knowledge brokers who can provide knowledge about global design practices, digital marketing strategies, and remote working procedures.

This explains why the interaction effect outweighs the coefficient on standard tourism volumes ($\beta = 0.142$). Unlike mass tourism, which is often performed in enclave-like systems where tourists interact to different extents with the host firm ecosystem, the interactions in question include collaboration projects, mentoring programs for startups in coworking areas, and feedback on services offered. It thus becomes evident why coworking centers and nomad-oriented cafes can be considered urban innovation ecosystems that involve the exchange rather than consumption of knowledge (Orel, 2019; Jaiswal et al., 2024).

The synergy between the two effects thus highlights the peculiarities associated with the lifestyle features typical for the digital nomads' community. Nomads seek a holistic approach to freedom where boundaries between work and recreation are deliberately removed (Reichenberger, 2017; Cook, 2020). As a result, businesses capable of promoting professional interaction and supporting this dual lifestyle achieve higher returns. For instance, a business owner who speaks to a nomad about his/her needs can receive feedback about internet connectivity and need for ergonomically designed

furniture. The resulting positive effect will make the business owner increase their absorptive capacity – the skill to utilize new knowledge – thus inviting a wider group of valuable nomads (Jiwasiddi et al., 2024).

The contrast can be easily seen when looking at companies considering nomads as leisure travelers. The results of our analysis show that without effective professional interaction, the economic benefit provided by a digital nomad can only amount to the economic value generated by a regular tourist. Therefore, the potential of the multiplier effect lies in the possibility to move beyond passive service provision and become a professional partner to nomads. These findings prove to be consistent with observations made in more developed destinations, where the role of nomads as inspirational and professional agents creates economic resilience that goes beyond holidays (Chavarría, 2024).

5.3. *Digital Adaptation as a Prerequisite for Growth*

Third, the strong moderating effect of Business Adaptation Strategies (BAS) signifies that the gains arising from the digital nomad economy have been unevenly distributed to only those organizations that have been institutionally and technologically prepared for this trend. As the interaction effect is significantly positive ($\beta = 0.318, p = 0.001$), external exposure to affluent nomads does not guarantee a source of profit-making as digital adaptation plays an important gatekeeping role. This result resonates with Rogers' (2003) Diffusion of Innovations theory, where the variables compatibility and relative advantage are considered essential constructs. As innovators and early adopters, digital nomads have special needs that can only be fulfilled in the service environment that has developed compatibility with their digital way of life. Therefore, micro, small, and medium enterprises (MSMEs) that strategically restructure their activities to introduce new mechanisms such as digital payments and service provision have been shown to successfully attract the target clientele (Qosim et al., 2025; Poulaki et al., 2023).

This process goes far beyond the question of convenience and is defined as a transition towards 'frictionless commerce'. For a nomad who uses the latest digital technologies, inability to make payments by card or lack of access to fast and reliable internet is a serious constraint preventing consumption rather than some minor hindrance. Thus, the results indicate that MSMEs that have not closed the technological gap have faced a phenomenon known as 'digital exclusion', meaning that, despite being geographically close to the target customer group, they have been ignored by digital nomads. As can be seen, mobility infrastructure has been proven vital for defining revenues generated by digital nomads in urban destinations (Bozzi, 2024; Thompson, 2019).

Another conclusion drawn from the analysis is that the phenomenon described by the authors represents the growing digital divide in the local MSME sector. Companies that demonstrate higher levels of digital adaptation are thriving because of the ability to increase their data-driven visibility through platforms like Google Maps and Instagram and thus attract global customers. Traditional businesses with no technology involved see little

value added by digital nomads due to reliance on foot traffic only. In such conditions, a clear division between survivors and doomed enterprises has emerged as a consequence of technological gap. Therefore, digital adaptation must be seen as an infrastructural requirement for participation in the digital nomad economy.

6. Conclusions

In this way, the findings provide empirical support to the notion that digital nomadism represents an independent economic phenomenon in the urban areas of Bali as opposed to traditional mass tourism. The research results demonstrate that DNI significantly influences the development of local businesses; hence, nomads contribute not only to the high inflow of people into tourist spots but are also key actors within the economic system of the region in terms of fostering a "high-value, low volume" development model.

Specifically, it should be highlighted that CENI plays a leading role in relation to the creation of economic value ($\beta = 0.512$); thus, the findings are consistent with the *Service-Dominant Logic* paradigm. In this case, local firms that manage to integrate themselves into the nomadic communities and become actively involved in interactions benefit from much higher economic gains. At that, relational lock-in appears to represent a powerful economic driver as opposed to mere inflows of nomads into tourist spots.

However, the interaction analysis reveals that not all the nomads can equally capitalize on their advantages, thus creating economic value for the host country. Consistent with the Knowledge Spillover Theory, the significant role of PIQ indicates that economic impact increases greatly in the event that tacit knowledge and professional capabilities are transferred effectively between the actors within the nomad economy. Also, the strong interaction between DNI and BAS supports the Dynamic Capabilities theory according to which failure to develop and reconfigure internal assets through adopting innovative strategies such as frictionless commerce and using digital payment systems may be viewed as digital exclusion.

6.1. Implications

Taking account of the above research findings, some policy and organizational implications become evident. Firstly, local authorities need to acknowledge the role of digital nomads as part of the strategic "creative class," not just another tourism niche. The policies themselves need to shift from traditional destination marketing to building an urban innovation system by focusing on fiber connectivity and other factors, such as encouraging the use of coworking spaces, not just the amenities associated with leisure activities.

Secondly, owners of micro, small, and medium enterprises (MSMEs) need to develop absorptive capacity. Simply providing hospitality services is not sufficient; successful engagement requires that MSME owners engage the nomads as professional equals, listen to their suggestions, leverage reputation on digital platforms, and create an environment that fosters productivity. Finally, to prevent traditional MSMEs from being marginalized, it

is imperative that assistance programs focus on enhancing digital literacy and using technological solutions (QRIS).

References

- Acs, Z. J., Braunerhjelm, P., Audretsch, D. B., & Carlsson, B. (2009). The knowledge spillover theory of entrepreneurship. *Small Business Economics*, 32(1), 15–30. <https://doi.org/10.1007/s11187-008-9157-3>.
- Antara, M., & Sumarniasih, M. S. (2017). Role of tourism in economy of Bali and Indonesia. *Journal of Tourism and Hospitality Management*, 5(2). <https://doi.org/10.15640/jthm.v5n2a4>.
- Astuti, N. N. S., Virginiya, P. T., Sanjiwani, I. G. A. M., & Bagiastuti, N. K. (2025). The transformation of Bali's digital nomad ecosystem in the wake of the Russian-Ukrainian war. *Pusaka : Journal of Tourism, Hospitality, Travel and Business Event*, 7(2), 370–382. <https://doi.org/10.33649/padaidi.v1i2.503>.
- Benson, M., & O'Reilly, K. (2009). Migration and the search for a better way of life: A critical exploration of lifestyle migration. *The Sociological Review*, 57(4), 608–625. <https://doi.org/10.1111/j.1467-954x.2009.01864.x>.
- Bozzi, A. (2024). Digital nomadism and cities: Exploring the production of mobility infrastructures in Barcelona. *Netcom*, 38-1/2. <https://doi.org/10.4000/11su8>.
- Braun, A. (2022). Tourism and the digital economy in Indonesia: The ARDL approach. *Tamansiswa Accounting Journal International*, 4(1), 16–23. <https://doi.org/10.54204/taji/vol412022003>.
- Chavarria, A. D. (2024). Sustainable tourists, generous consumers, lifestyle inspirers: The attitudes and expectations of Zadar's local authorities vis-à-vis digital nomads. *Netcom*, 38-1/2. <https://doi.org/10.4000/vy1m>.
- Christiansen, R. A., Ihalauw, J. J. O. I., N.A.N., A. K., & Purwati, Y., SE. (2023). Developing digital nomads as a new market segment and their role in the local digital ecosystem. *Journal of System and Management Sciences*, 13(2), 1–16. <https://doi.org/10.33168/jsms.2023.0201>.
- Cook, D. (2020). The freedom trap: Digital nomads and the use of disciplining practices to manage work/leisure boundaries. *Information Technology & Tourism*, 22(3), 355–390. <https://doi.org/10.1007/s40558-020-00172-4>.
- Florida, R. (2014). The rise of the creative class--revisited: Revised and expanded. *Basic Books*.
- Granovetter, M. (1985). Economic action and social structure: the problem of embeddedness. *American Journal of Sociology*, 91(3), 481–510. <https://doi.org/10.2307/2780199>.
- Hannonen, O., Aguiar Quintana, T., & Lehto, X. Y. (2023). A supplier side view of digital nomadism: The case of destination Gran Canaria. *Tourism Management*, 97, 104744. <https://doi.org/10.1016/j.tourman.2023.104744>.
- Heo, J., Zhang, T., & Hua, N. (2025). The growing phenomenon of digital nomads: merging work and travel in the hospitality and tourism industry. *Journal of Hospitality & Tourism Cases*. <https://doi.org/10.1177/21649987241307408>.
- Jaiswal, R., Gupta, S., & Gupta, S. K. (2024). The impending disruption of digital nomadism: Opportunities, challenges, and research agenda. *World Leisure Journal*, 67(1), 74–104. <https://doi.org/10.1080/16078055.2024.2346091>.

- Jiwasiddi, A., Schlagwein, D., Cahalane, M., Cecez-Kecmanovic, D., Leong, C., & Ractham, P. (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(5), 1493–1535. <https://doi.org/10.1111/isj.12496>.
- Kc, H., & Triandafyllidou, A. (2025). Digital nomadism and the emergence of digital nomad visas: What policy objectives do states aim to achieve? *International Migration Review*. <https://doi.org/10.1177/01979183241306367>.
- Kozak, M., Cetin, G., & Alrawadieh, Z. (2024). Repositioning work and leisure: Digital nomads versus tourists. *International Journal of Tourism Research*, 26(4). <https://doi.org/10.1002/jtr.2732>.
- Lee, J. W., & Syah, A. M. (2018). Economic and environmental impacts of mass tourism on regional tourism destinations in Indonesia. *The Journal of Asian Finance, Economics and Business*, 5(3), 31–41. <https://doi.org/10.13106/jafeb.2018.vol5.no3.31>.
- Lei, J., Indiran, L., & Haiyat Abdul Kohar, U. (2023). Barriers to digital transformation among MSME in tourism industry: Cases studies from Bali. *International Journal of Academic Research in Business and Social Sciences*, 13(3). <https://doi.org/10.6007/ijarbss/v13-i3/16575>.
- Li, Q., Zhang, H., Wu, M.-Y., Wall, G., & Ying, T. (2021). Family matters: dual network embeddedness, resource acquisition, and entrepreneurial success of small tourism firms in rural China. *Journal of Travel Research*, 61(8), 1757–1773. <https://doi.org/10.1177/00472875211047275>.
- Mieli, M., & Zillinger, M. (2024). Anywhere workers and the sustainable development of tourist destinations. In *Emerging Trends in Consumer Behaviour in the Service Sector*. Goodfellow Publishers. <https://doi.org/10.23912/9781915097644-5809>.
- Mutalemwa, D., Ntalindanya, E. M., & Issa, F. (2025). Can virtual leadership work in tanzanian healthcare? Examining SME and large provider practices. *TIJAB (The International Journal of Applied Business)*, 9(1), 27–37. <https://doi.org/10.20473/tijab.v9.i1.2025.57034>.
- Noviarini, N., & Samputra, P. L. (2024). Digital nomad and analysis of regional economic resilience of tourism sector in Bali province after Covid-19 pandemic. *Jurnal Indonesia Sosial Teknologi*, 5(5), 2107–2119. <https://doi.org/10.59141/jist.v5i5.1068>.
- Orel, M. (2019). Coworking environments and digital nomadism: Balancing work and leisure whilst on the move. *World Leisure Journal*, 61(3), 215–227. <https://doi.org/10.1080/16078055.2019.1639275>.
- Poulaki, I., Mavragani, E., Kaziani, A., & Chatzimichali, E. (2023). Digital nomads: Advances in hospitality and destination attractiveness. *Tourism and Hospitality*, 4(3), 483–498. <https://doi.org/10.3390/tourhosp4030030>.
- Qosim, N., Rukmana, A. Y., & Usup, U. (2025). The impact of digital nomad economy on local businesses study of MSME market changes in popular destinations in Indonesia. *The Eastasouth Journal of Social Science and Humanities*, 2(02). <https://doi.org/10.58812/esssh.v2i02.474>.
- Reichenberger, I. (2017). Digital nomads – a quest for holistic freedom in work and leisure. Victoria University of Wellington Library. Retrieved from Victoria University of Wellington Library website: <https://doi.org/10.26686/wgtn.13946537.v1>.
- Riskyawan, A. V., & Ervianty, R. M. (2019). The use of digital marketing communication media as a tool to achieve brand awareness of kitchenindo products. *TIJAB (The*

- International Journal of Applied Business*), 3(1), 59. <https://doi.org/10.20473/tijab.v3.i1.2019.59-72>.
- Rivi Hatifa, R., Sudana, I. P., & Kristianto, Y. (2024). Implementasi pemasaran bwork Bali untuk menarik wisatawan digital nomad. *Jurnal IPTA*, 12(1), 122. <https://doi.org/10.24843/ipta.2024.v12.i01.p16>.
- Rizana, A. F., Wiratmadja, I. I., & Akbar, M. (2025). Exploring capabilities for digital transformation in the business context: Insight from a systematic literature review. *Sustainability*, 17(9), 4222. <https://doi.org/10.3390/su17094222>.
- Rogers, E. M. (2003). Diffusion of innovations, 5th edition. *Simon and Schuster*.
- Satifa Putri, Y., & Widyastuti, H. (2023). The effect of electronic word of mouth, destination image on tourist visiting decisions at Nagari Tuo Pariangan tourism object. *TIJAB (The International Journal of Applied Business)*, 7(1), 104–114. <https://doi.org/10.20473/tijab.v7.i1.2023.433333>.
- Sciuva, E. (2025). Geographies of digital nomadism: A research agenda. *Geography Compass*, 19(2). <https://doi.org/10.1111/gec3.70016>.
- Su, H., Liang, Y., & Wen, T. (2023). Structural embeddedness, entrepreneurial behavior, and firm performance in the industry network of small tourism enterprises: The moderating role of relational embeddedness and leadership self-efficacy. *Journal of Hospitality and Tourism Management*, 56, 431–442. <https://doi.org/10.1016/j.jhtm.2023.06.007>.
- Suryawati, R. F., & Nurdana, D. P. P. (2021). The impact of peer-to-peer (P2P) lending on business development of small and medium-sized enterprises. *TIJAB (The International Journal of Applied Business)*, 5(2), 201. <https://doi.org/10.20473/tijab.v5.i2.2021.31540>.
- Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350. <https://doi.org/10.1002/smj.640>.
- Thompson, B. Y. (2019). The digital nomad lifestyle: (Remote) work/leisure balance, privilege, and constructed community. *International Journal of the Sociology of Leisure*, 2(1–2), 27–42. <https://doi.org/10.1007/s41978-018-00030-y>.
- Urry, J. (2002). *The tourist gaze*. SAGE.
- Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68(1), 1–17. <https://doi.org/10.1509/jmkg.68.1.1.24036>
- Zvaigzne, A., Litavniece, L., & Dembovska, I. (2022). Tourism seasonality: The causes and effects. *Worldwide Hospitality and Tourism Themes*, 14(5), 421–430. <https://doi.org/10.1108/whatt-07-2022-0080>.