DIGITAL NOMADS — THE CASE OF THE AUTONOMOUS REGION OF MADEIRA

AUTHOR 1: Luís Sardinha (iD), ESTG—Universidade da Madeira, Portugal, sar_dinha@hotmail.com.
AUTHOR 2: Micaela Vieira (iD), Startup Madeira, Portugal, micaela.vieira@startupmadeira.eu.
AUTHOR 3: Áurea Sousa de Sousa (iD), Universidade dos Açores, Portugal, aurea.st.sousa@uac.pt.
AUTHOR 4: Eduardo Leite (iD), Universidade da Madeira, Portugal, eduardo.leite@staff.uma.pt.

ABSTRACT

In 2021, the pioneering project "Digital Nomads Madeira Islands" (DNMI) started in the Autonomous Region of Madeira (ARM). Specific objectives were defined to systematize the evolution of digital nomads (DN) from 2020 to 2022 and summarize their sociodemographic characteristics and trends. Through a questionnaire, this quantitative and descriptive study aims to understand the reality of DN in the ARM. The sample consists of 14,960 DN registered within the scope of DNMI project by Startup Madeira, who responded to the questionnaire between November 2020 and December 2022. It was observed that the project attracted DN from all around the world, surpassing 135 countries. The most significant profession represented was "Software and Applications Developers and Analysts." The year 2021 had the highest number of registrations of DN, possibly due to the novelty of Digital Nomads Village project and coinciding with the COVID-19 pandemic period. This study provides a significant contribution on multiple levels.

KEYWORDS: Autonomous Region of Madeira; Digital Nomads; Digital Nomads Madeira Islands; Digital Nomads Village; Startup Madeira.

1. INTRODUCTION

Technology and the digital work environment have been reshaping societies' daily lives. Technological terminals are more advanced, shared workspaces (e.g., coworking) have been created, and state-of-the-art wireless internet, among other examples, has enabled an expansion of possibilities in the national and international job market. Simultaneously, as Drucker (2019) asserted, we live in an era of the knowledge worker, where intellectual work is not defined by quantity but by results. The evolution of knowledge has empowered workers, freeing them from the need to be tied to a physical workplace, and organizations are aware that many of their employees can perform their duties from anywhere.

In the 20th century, Makimoto and Manners (1997) anticipated the emergence of digital nomads and stated that they live outside the classical boundaries of organizations. The same authors consider digital nomads to be independent individuals with a lifestyle characterized by a symbiosis between work and leisure. Life is simplified through the intensive use of portable technologies, freeing people to travel while remaining connected to their work (Mourato et al., 2023). Thus, a new category of professionals has emerged who perform their work remotely from anywhere in the world, relying on digital technologies (Correia et al., 2022).

In the existing literature, various studies on the topic of digital nomads can be found from different perspectives, ranging from the advantages of remote work to employability (Chevtaeva & Denizci-Guillet, 2021), social responsibility (Mourato et al., 2023), co-living and well-being (von Zumbusch & Lalicic, 2020), personality (Castro &

Gosling, 2022), hospitality (Sousa & Joukes, 2022), and tourism (Angiello, 2022). It's worth noting that the latter emphasizes Venice and the Autonomous Region of Madeira (ARM), followed by other authors and studies that place Madeira at the center of case studies in the field (e.g., Almeida and Belezas, 2022; Angiello, 2022; Moreira et al., 2022; Mourato, 2022; Vieira, 2022).

In practice, it all began as an initiative of the Regional Government of Madeira, through Startup Madeira (Startup Madeira, 2023), aiming to capitalize on the conditions that the ARM offers in terms of outdoor activities, culture, and climate, establishing a new project called "Digital Nomads Madeira Islands."

After approximately three years, due to the success of the initiative and the interest it has sparked within the scientific community, this study aims to characterize the profile of digital nomads in Madeira, seeking to address the following questions:

- What has been the evolution of digital nomads in the Autonomous Region of Madeira over the past triennium?
- What is the sociodemographic profile of the Digital Nomad of the ARM?

The general objective of this study is to understand the reality of digital nomads in the ARM, including their sociodemographic characterization and temporal evolution. Following that, specific objectives have been defined to systematize the evolution of digital nomads from 2020 to 2022, summarize their sociodemographic characteristics, and identify trends.

Whereas the Digital Nomads Village initiative was a pioneer in Portugal and Europe, this research constitutes a substantial contribution across various fronts. It holds considerable value in shaping directives and tactics, not solely for the Digital Nomads Madeira Islands and Digital Nomads Village initiatives, but also for the tourism industry, striving toward sustainability and advancement. It acts as an important step for subsequent investigations and the cultivation of a more profound comprehension of digital nomads opting for Madeira.

In accordance with the purpose of this research, the article begins with an initial section that provides a literature review, allowing for a contextualization of the topic. The following section explains the method employed, followed by the presentation and discussion of the results. In the final section, the primary conclusions arising from this research effort are laid out.

2. LITERATURE REVIEW

2.1. DIGITAL NOMADS

The interest in investigating the phenomenon of Digital Nomads has grown, in tandem with the global movement of significant changes in work practices, lifestyle, and the quest for a balance between leisure, personal life, and work independence (Almeida et al., 2021). It's worth noting that the term "Digital Nomad" was first popularized in 1997 by Makimoto and Manners (1997), who characterized the general traits of this professional profile.

According to Chevtaeva and Denizci-Guillet (2021), the term digital nomad is often confused with remote worker, and the authors have identified several definitions of digital nomads (Table I). Despite the differences, common elements emerge in all definitions, including work in a digital environment, independence, mobility, and leisure.

TABLE I: Definitions of Digital Nomads.

DEFINITIONS OF DIGITAL NOMADS:
"Young professionals who exclusively work in an online environment while adopting a lifestyle often reliant on travel and independent of location, where the boundaries between work, leisure, and travel seem indistinct" (Reichenberger, 2017).
"They are redefining professional life by seeking jobs that enable global travel, flexibility in working hours, and a departure from the traditional office environment" (Richter & Richter, 2020).
"Individuals who, leveraging portable computing technologies and widespread internet access, can work remotely from any location and use this freedom to explore the world" (Mancinelli, 2020).
"Independent digital workers with extreme forms of spatial mobility and non-existent organizational affiliations" (Nash et al., 2021).

SOURCE: (Chevtaeva & Denizci-Guillet, 2021).

Nevertheless, amidst the various emerging research, it's important to distinguish digital nomads from, for example, freelancers, business travelers, backpackers, or even other global nomads. Chevtaeva and Denizci-Guillet (2021) summarized that digital nomads, unlike backpackers, place a significant focus on work during their travels. They choose their trips based on leisure interests and exhibit greater mobility, which sets them apart from business travelers or even freelancers. As for backpackers, they prioritize freedom and leisure over work.

According to the literature, it's possible to establish a sociodemographic profile of a typical digital nomad: they are mostly from the Western world, young professionals/millennials, unmarried, self-employed with a moderate income, and engage in activities related to fields such as digital marketing, web design, software engineering, computer programming, and video language tutoring. They seek warm and low-cost living destinations. The average duration of their travels is around three months (Chevtaeva & Denizci-Guillet, 2021; Moreira et al., 2022; Reichenberger, 2017; von Zumbusch & Lalicic, 2020).

2.2. THE AUTONOMOUS REGION OF MADEIRA AND THE NEW TOURIST PROFILE

Portugal is in the south-western tip of the Iberian Peninsula, and it includes two outermost regions: the Autonomous Region of Azores and the Autonomous Region of Madeira (ARA and ARM, respectively). The ARM is one of Portugal's two Outermost Regions (OR) and is the closest to the capital, Lisbon (1000 km). The ARM consists of the islands of Madeira, Porto Santo, Desertas, and Selvagens (Ministério dos Negócios Estrangeiros, 2023). It has a population of approximately 250,000 inhabitants, with the highest population density in the region found in Funchal (1,388 inhabitants/km^2) (Instituto Nacional de Estatística, 2023). Its economy is strongly characterized by "regional endogenous resources (natural, built, knowledge, and initiative), mainly: Tourism/Leisure, Heritage and Culture, Marine Resources and Technologies (Blue Economy), Agri-Food (agricultural production and agro-transformation), Energy and Sustainable Mobility, and Urban Rehabilitation" (Decreto Legislativo Regional n.° 17/2020/M). Currently, the ARM's strategic growth model is primarily supported by tourism.

According to the 2030 Economic and Social Development Plan of the ARM, the regional strategy focuses on several thematic areas, including Agri-Food, Tourism, Sea (Marine-Maritime), Circular Economy, Bio-Sustainability, Health and Well-Being, and Digitalization. Regarding tourism, the indicators show favorable trends for the ARM in terms of volume effects, occupancy indicators, and gains in economic and financial performance. However, this document also highlights the negative impact felt due to the emergence of the COVID-19 pandemic (Decreto Legislativo Regional n.° 17/2020/M). The current reality indeed shows a reversal of trends (post-COVID-19) and a noticeable recovery in key indicators. For example, comparing February 2023 with February 2019 (pre-pandemic), tourist accommodation activity has seen a growth of 34.2% in overnight stays. Additionally, the RevPAR (revenue per

available room) reached approximately 56.42 euros, compared to 36.14 euros in February 2019. In February 2023, approximately 85.6% of establishments reported guest activity (Direção Regional de Estatísticas da Madeira, 2023).

It's worth noting that the new generations (e.g., Generation Z) represent market opportunities in the tourism sector. Generation Z is characterized by not making a clear distinction between online and offline, as their physical and digital lives have always coexisted. As the first generation of digital natives, when it comes to travel, they are concerned about the price of travel and accommodation. However, they value socialization, seek experiences that represent local culture, and prioritize the authenticity of traveler reviews with real travel experiences and opinions over travel experts when considering their travel destination (Marques, 2022; Pereira, 2022). They look for sustainable and environmentally responsible lodging options (Mourato, 2022; Pereira, 2022). In summary, they are more inclined to travel individually and prefer temporary accommodation over acquiring a permanent residence.

The recent tourist profile emerges in parallel with the advent of new modes of work, innovative information and communication technologies, and differentiated work organization and execution (Castro & Gosling, 2022). These technologies have enabled workers to enjoy their tourist destinations while simultaneously increasing their productivity and work efficiency (Correia et al., 2022). At the same time, a new type of tourism is emerging, namely the tourism of microentrepreneurs, which, although still little studied, is becoming more visible and influential, mainly/mainly due to information technologies (Morais, 2021; Ratten, 2020). In this assumption, smart tourism becomes important, which consists of the use of information and communication technologies to facilitate and enrich tourism products/services and experiences, create sustainable economic, social, and environmental benefits for all and promote the competitiveness of the destination (Garanti, 2023).

2.3. ABOUT THE DIGITAL NOMADS MADEIRA ISLAND INITIATIVE

The recent pandemic context, caused by COVID-19, has precipitated several changes in the workplace. We observe the so-called "digital Darwinism" (Veríssimo, 2021) and modern realities emerge (e.g., hybrid work (Alves, 2021; Lopes, 2021), fewer working hours and/or work flexibility (Silva, 2021), or even telecommuting (Lei n.º 83/2021). This situation has accelerated the spread of digital nomads and, in parallel, new programs have emerged to attract and assist them, such as the Digital Nomads Madeira Islands. This project was launched in November 2020, promoted by the Regional Secretariat for the Economy of Madeira, Startup Madeira, Gonçalo Hall, with partners including the digital nomad community, local businesses, and the John dos Passos Cultural Center, NOS Madeira, international platforms, as well as communities that work directly and indirectly with this niche market. The concept was tested from February 1 to June 30, 2021. This period allowed the organization and the private partners to understand the needs of digital nomads, adapting products and services to those needs, and later presenting Ponta do Sol as a Digital Nomad Village. The project is planned to be maintained until 2024. Following that, other locations were included in the project, such as Machico (Remote East Coasters), Funchal (Madeira Friends International Community Association), Jardim do Mar (Nomadico), Santa Cruz (HomeOffice), and Porto Santo. The concept of Digital Nomads Village was pioneering and unique in Europe, garnering mentions in the press and academic research, e.g., (J. Almeida & Belezas, 2022; Angiello, 2022; Moreira et al., 2022; Mourato, 2022; Vieira, 2022). The Digital Nomads Madeira Islands and Digital Nomads Village concepts aim to provide information about accommodation, coworking spaces, and access to local community managers for digital nomads. The Regional Government of Madeira has been making efforts to invest more resources in the project, including workspace facilities, and suitable internet infrastructure (Angiello, 2022). In the last three months of 2022, the ARM saw an average of 2,500 digital nomads per month (Nomad List, 2023).

Recently, the Portuguese government aimed to streamline and update the process for granting temporary stay or residence visas to workers who wish to work remotely in Portugal for an employer located outside Portuguese territory. Among the various objectives, it allows the visa holder to reside in Portugal and work remotely, whether as

an individual or as a company with a domicile or headquarters outside the national territory (Lei n.º 18/2022). These are some of the variables contributing to the potential for exponential growth in the Digital Nomads Madeira Islands and Digital Nomads Village projects.

2.4. THE BUSINESS SECTOR AT THE ARM — THE CONTRIBUTION OF TOURISM

An enterprise means any entity that carries out an economic activity, regardless of its legal status (Decreto-Lei n.º 135-B/2017). Because the economic activity is determinant and not its legal form, self-employed persons, family businesses, partnerships, and associations or other entities carrying out economic activities on a regular basis may be regarded as undertakings (European Commission, 2015).

At regional level, in terms of size, regional enterprises belong almost exclusively (99.92%) to the Small and Medium-sized Enterprises (SMEs) group. Among these, most are micro-enterprises (95.93% of SMEs). The number of medium-sized non-financial companies stood at 171 (+12.5%) in 2021 compared to 2020, while large companies did not exceed 24 (+14.3% compared to 2020) (Direção Região de Estatística da Madeira, 2023a). In 2021, 4,427 (+25.8% compared to 2020) companies based in the Autonomous Region of Madeira were born. In 2021, there were 4,367 non-financial companies in the Autonomous Region of Madeira, translating into 866 more (+24.7%) than in the previous year and 156 (+3.7%) more compared to 2019. "Other services," "Accommodation and Catering," "Commerce" and "Construction and Real Estate Activities" were the sectors of activity where the most companies were founded (+2 594, +413, +366 and +363, respectively). In terms of turnover, the new companies in "Other Services," "Commerce," and "Accommodation and Restaurants" contributed 35.8, 12.9 and 10.7 million euros, respectively. "Information and Communication" activities, "Other Services" and "Transport and Storage" recorded the highest birth rates: 25.1%, 20.4% and 15.2%, respectively (Direção Região de Estatística da Madeira, 2023b).

It is well known that the Tourism sector at the ARM is a driver of its economy. Within tourism, we have a panoply of businesses, among which: travel agencies and tour operators, hotels, restaurants, shops, airports, transportation, among others (Associação Comercial e Industrial do Funchal & KPMG, 2014).

According to data from the Direção Regional da Estatística da Madeira (2022), the Gross Value Added generated by Tourism (VABGT) reached, in 2019, 16.2% of the GVA of the regional economy, amounting to a total of 732.1 million euros. The Consumption of Tourism in the Economic Territory (CTTE), which summarizes the tourist demand, was around 1,477.4 million euros, representing 28.8% of Gross Domestic Product (GDP). In 2020 the GDP of the Autonomous Region of Madeira reached 4,449.6 million euros. Thus, tourism is an indispensable source of revenue, so Madeira's regional strategic orientation has a focus on innovation and internationalization. The rejuvenation of the business fabric can contribute to this goal (Instituto de Desenvolvimento Regional, 2019).

According to Nomad List (2023), in Madeira a digital nomad has 2,090 euros of expenses per month on average, an expat of about 1,570 euros. The same source states that in 2021 about 1,700 digital nomads passed through the ARM on average per month and in 2022 about 2,300 digital nomads.

3. METHOD

The present study is quantitative and descriptive, employing a questionnaire for data collection, which was analyzed using IBM SPSS Statistics and Microsoft Excel software. The questionnaire was distributed between November 2020 (following the launch of the Digital Nomads Madeira Islands website) and December 2022. The information collected during the COVID-19 pandemic was gathered through a form specifically targeted at digital nomads interested in relocating to Madeira to work remotely, benefiting from the information and project details of the Digital Nomads Village in Ponta do Sol. The literature review provided the theoretical foundation, and according to Gil (2017), one of the characteristics of quantitative and descriptive studies is the use of standardized techniques, such as questionnaires and systematic observation.

The data was collected via an online questionnaire using Google Forms. The sample consists of 14,960 digital nomads registered within the scope of the Digital Nomads Madeira Islands project by Startup Madeira, who responded to the questionnaire between November 2020 (project inception) and December 2022. The questionnaire was constructed to provide information that could identify the profile of the digital nomad that was willing to stay in Madeira Island, such as main contacts, so personalized information could be sent (e.g., job title, age, and estimated date of arrival and departure). All those who have completed their registration on the Digital Nomads Madeira Islands website have been included in this database, with the database having limited access to the program's organizers. Access to the answers was shared with the authors, respecting the personal details (e.g., name and contacts), which were omitted before the analysis.

It's noteworthy that the use questionnaire includes variables such as "Year," "Home Country," "Age Group," "Planned Duration of Stay," "Planned Accommodation Location(s)," and "Main Activity(ies)," which are crucial for addressing the research questions previously outlined.

After the completion and submission of the questionnaire, the responses were automatically recorded in the database. The generated data were later transferred to the IBM SPSS Statistics software for statistical analysis.

The data treatment and analysis were conducted using statistical methods, including summary measures within the scope of Descriptive Statistics. Beforehand, the country of origin was recoded into 10 sociocultural regions according to the subdivision presented in (Ferreira, 2019), and the professional activities were recoded into 14 categories based on the International Standard Classification of Occupations (International Labour Office, 2012).

4. RESULTS/DISCUSSIONS

A total of 14,960 digital nomads participated in this study. In terms of evolution over the analyzed period, addressing the initial question, it was found that 2021 had the highest number of digital nomads (68%), decreasing to 4,631 (31%) in the following year (Table II).

TABLE II: Number and Percentage of Digital Nomads by Year and Sociocultural Region.

YEAR	2020		2021		2022		TOTAL	
	N	%	N	%	N	%	N	%
North America	28	1.14%	1,831	74.3%	605	24.6	2,464	16.5%
Latin America	8	0.46%	1,350	78.2%	369	21.4	1,727	11.5%
Europe	152	1.73%	5,770	65.7%	2,858	32.6	8,780	58.7%
Islamic World	3	0.82%	221	60.5%	141	38.6	365	2.4%
African World	4	1.52%	167	63.5%	92	35.0	263	1.8%
Indian World	1	0.39%	195	76.2%	60	23.4	256	1.7%
Russian Orthodox	5	0.57%	450	51.1%	425	48.3	880	5.9%
Extreme Orient	3	6.00%	24	48.0%	23	46.0	50	0.3%
Southeast Asia	1	1.30%	52	67.5%	24	31.2	77	0.5%
Australia and Oceania	1	1.19%	50	59.5%	33	39.3	84	0.6%
No Information	2	14.29%	11	78.6%	1	7.1	14	0.1%
Total	208	1.39%	10,121	68%	4,631	31%	14,960	100%

SOURCE: Own elaboration.

Regarding the age group from a global perspective, it can be noted that the most common age group is "between 31 and 40 years old" (39.69%). Considering the regions with the highest number of inscriptions of digital nomads, in

Europe, the most frequent age group is "between 21 and 30 years old" (42.72%), and in North America, it is "between 31 and 40 years old" (34.5%) (Table III).

TABLE III: Number and Percentage of Digital Nomads by Age Group and Sociocultural Region (2020–2022).

AGE (YEARS)	LESS THAN 20		BETWEEN 21 AND 30		BETWEEN 31 AND 40		BETWEEN 41 AND 50		BUT FROM 50		ABSENT		TOTAL
	N	%	N	%	N	%	N	%	N	%	N	%	N
North America	4	0.16	660	26.79	850	34.50	465	18.87	480	19.48	5	0.20	2,464
Latin America	6	0.35	553	32.02	746	43.20	291	16.85	114	6.60	17	0.98	1,727
Europe	40	0.46	3,751	42.72	3,493	39.78	994	11.32	498	5.67	4	0.05	8,780
Islamic world	3	0.82	146	40.00	163	44.66	40	10.96	13	3.56	0	0.00	365
African World	2	0.76	95	36.12	95	36.12	44	16.73	27	10.27	0	0.00	263
Indian world	0	0.00	101	39.45	105	41.02	40	15.63	10	3.91	0	0.00	256
Russian Orthodox	5	0.57	390	44.32	391	44.43	74	8.41	20	2.27	0	0.00	880
Extreme Orient	0	0.00	20	40.00	20	40.00	4	8.00	6	12.00	0	0.00	50
Southeast Asia	0	0.00	23	29.87	31	40.26	17	22.08	4	5.19	2	2.60	77
Australia and Oceania	0	0.00	21	25.00	41	48.81	14	16.67	8	9.52	0	0.00	84
No Information	0	0.00	6	42.86	3	21.43	2	14.29	1	7.14	2	14.29	14
Total	60	0,4	5,766	38.54	5,938	39.69	1,985	13.27	1,181	7.89	30	0.20	14,960

SOURCE: Own elaboration.

Regarding the number of planned accommodation locations, more than 90% planned to stay in a single location. From a global perspective, the municipality that hosted the largest number of digital nomads was the municipality of Ponta do Sol (76.24%), followed by the municipality of Funchal (15.69%). Analyzing from an annual perspective, the same trend was observed.

Regarding the length of stay, the most frequent estimate (mode) was between 1 to 2 months (approximately 36.5%), followed by the response "3 to 4 months" (12.8%) and less than 1 month (12.4%). Only 2.4% considered staying for more than 5 months and less than 11 months. From a perspective of long-term accommodation, i.e., exceeding 11 months, 461 respondents (3.1%) considered this possibility. It's worth noting that 33% of respondents did not have an estimate regarding the duration of their stay (Table IV).

TABLE IV: Number and Percentage of Digital Nomads by Planned Duration of Stay (in Number of Months) and Sociocultural Region (2020–2022).

ESTIMATED LENGTH OF STAY (MONTHS)	LESS THAN 1		BETWEEN 1 AND 2		BETWEEN 3 AND 4		BETWEEN 5 AND 6		BETWEEN 7 AND 8		BETWEEN 9 AND 10		MORE THAN 11		ABSENT		TOTAL
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
North America	214	8.69	863	35.02	421	17.09	40	1.62	11,00	0.45	1	0.04	83	3.37	831	33.73	2,464
Latin America	86	4.98	388	22.47	369	21.37	65	3.76	9,00	0.52	3	0.17	92	5.33	715	41.40	1,727
Europe	1,408	16.04	3,684	41.96	768	8.75	132	1.50	14,00	0.16	4	0.05	145	1.65	2,625	29.90	8,780
Islamic world	44	12.05	99	27.12	53	14.52	6	1.64	0,00	0.00	0	0.00	20	5.48	143	39.18	365
African World	10	3.80	50	19.01	53	20.15	14	5.32	3,00	1.14	0	0.00	32	12.17	101	38.40	263
Indian world	15	5.86	68	26.56	55	21.48	8	3.13	2,00	0.78	0	0.00	24	9.38	84	32.81	256
Russian Orthodox	58	6.59	231	26.25	168	19.09	19	2.16	4,00	0.45	1	0.11	55	6.25	344	39.09	880
Extreme Orient	2	4.00	21	42.00	5	10.00	1	2.00	0,00	0.00	0	0.00	2	4.00	19	38.00	50
Southeast Asia	5	6.49	15	19.48	11	14.29	3	3.90	1,00	1.30	0	0.00	6	7.79	36	46.75	77
Australia and Oceania	7	8.33	29	34.52	12	14.29	5	5.95	1,00	1.19	0	0.00	2	2.38	28	33.33	84
No Information	1	7.14	8	57.14	1	7.14	0	0.00	0,00	0.00	0	0.00	0	0.00	4	28.57	14
Total	1,850	12,37	5,456	36,47	1,916	12.81	293	1.96	45,00	0.30	9	0.06	461	3,08	4,930	32,95	14,960

SOURCE: Own elaboration.

Regarding the professional activities carried out, on a global scale and throughout the data collection period, the vast majority exclusively engage in a single professional activity (93.03%). Approximately 655 respondents engage in two or more activities (4.38%), as shown in Table V. The main identified professional activity throughout the period was "Software and applications developers and analysts" (reported by 24.06% of respondents who answered this question), followed by "Business services and administration managers" (15.66%) (Table VI).

TABLE V: Number and Percentage of Digital Nomads by Number of Professional Activities per Sociocultural Region (2020–2022).

| PROFESSIONAL ACTIVITY NO.	ONE ACTIVITY		TWO ACTIVITIES		THREE ACTIVITIES		ABSENT		TOTAL
	N	%	N	%	N	%	N	%	N
North America	2,296	93.18%	96	3.90%	19	0.77%	53	2.15%	2,464
Latin America	1,583	91.66%	51	2.07%	4	0.16%	89	3.61%	1,727
Europe	8,168	93.03%	384	15.58%	28	1.14%	200	8.12%	8,780
Islamic world	339	92.88%	19	0.77%	1	0.04%	6	0.24%	365
African World	241	91.63%	13	0.53%	3	0.12%	6	0.24%	263
Indian world	241	94.14%	10	0.41%	1	0.04%	4	0.16%	256
Russian Orthodox	840	95.45%	18	0.73%	0	0.00%	22	0.89%	880
Extreme Orient	44	88.00%	4	0.16%	0	0.00%	2	0.08%	50
Southeast Asia	72	93.51%	2	0.08%	0	0.00%	3	0.12%	77
Australia and Oceania	81	96.43%	2	0.08%	0	0.00%	1	0.04%	84
No Information	12	85.71%	0	0.00%	0	0.00%	2	0.08%	14
Total	13,917	93%	599	4%	56	0,37%	388	2.59%	14,960

SOURCE: Own elaboration.

TABLE VI: Number and Percentage (Valid) of Digital Nomads by Professional Activity, by Year and Sociocultural Region (2020–2022).

PROFESSIONAL ACTIVITIES	2020		2021		2022		TOTAL	
	N	%	N	%	N	%	N	%
Managing Directors and Chief Executives	33	15.42%	809	7.83%	375	7.91%	1,217	7.96%
Business Services and Administration Managers	30	14.02%	1,645	15.92%	719	15.18%	2,394	15.66%
Sales, Marketing and Development Managers	18	8.41%	630	6.10%	295	6.23%	943	6.17%
Other Professions	23	10.75%	1,147	11.10%	466	9.84%	1,636	10.70%
Architects, Planners, Surveyors and Designers	4	1.87%	336	3.25%	147	3.10%	487	3.19%
Other Teaching Professionals	10	4.67%	479	4.64%	159	3.36%	648	4.24%
Finance Professionals	8	3.74%	357	3.46%	168	3.55%	533	3.49%
Administration Professionals	10	4.67%	537	5.20%	282	5.95%	829	5.42%
Sales, Marketing and Public Relations Professionals	17	7.94%	857	8.30%	428	9.03%	1,302	8.52%
Software And Applications Developers and Analysts	45	21.03%	2,387	23.11%	1,245	26.28%	3,677	24.06%
Social And Religious Professionals	4	1.87%	223	2.16%	94	1.98%	321	2.10%
Authors, Journalists and Linguists	5	2.34%	415	4.02%	156	3.29%	576	3.77%
Creative And Performing Artist	5	2.34%	291	2.82%	140	2.95%	436	2.85%
Student, retired, gap year and unemployed	2	0.93%	218	2.11%	64	1.35%	284	1.86%
Total	214	1,40%	10,331	67,60%	4,738	31.00%	15,283	100.00%

Source: Own elaboration.

Regarding the sociocultural distribution, it is worth noting that most registrations (58.7%) are from Europe, and approximately 16.5% of respondents are from North America, which together accounts for over 75% of the total respondents. It was observed that these two regions have higher GDP values. In contrast, the Far East and Southeast Asian regions have lower GDP values (Figure I).

FIGURE I: Total Digital Nomads by Region.
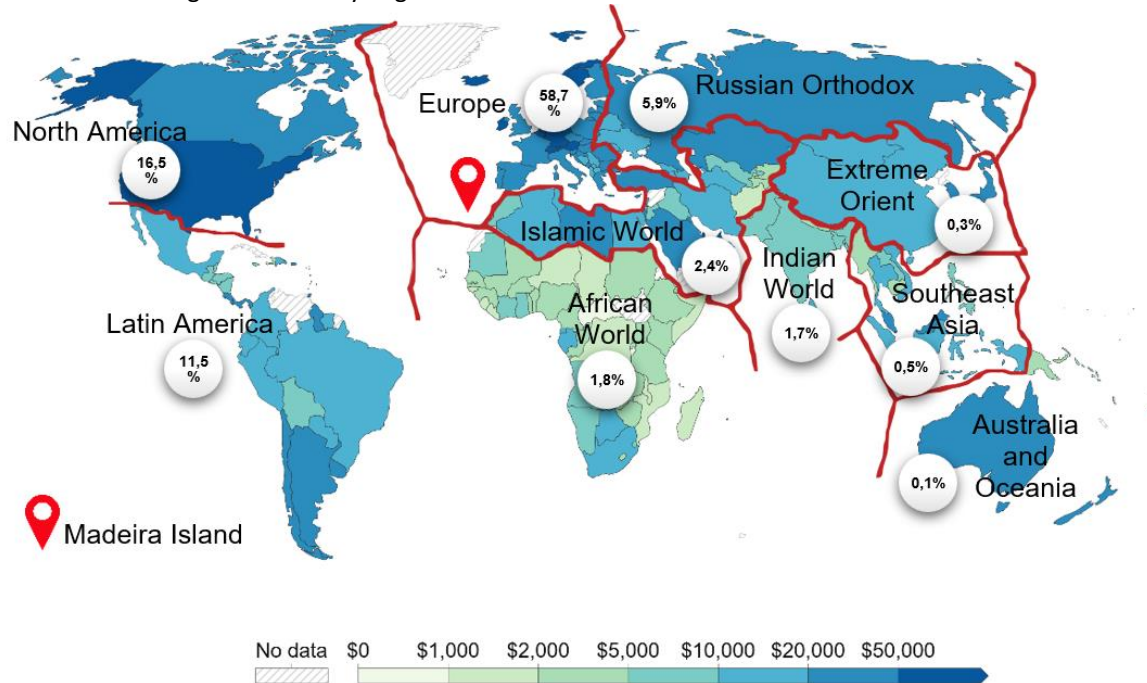
Source: Data compiled from multiple sources by World Bank
Note: This data is expressed in international-$[1] at 2017 prices.

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1. International dollars: International dollars are a hypothetical currency that is used to make meaningful comparisons of monetary indicators of living standards. Figures expressed in international dollars are adjusted for inflation within countries over time, and for differences in the cost of living between countries. The goal of such adjustments is to provide a unit whose purchasing power is held fixed over time and across countries, such that one international dollar can buy the same quantity and quality of goods and services no matter where or when it is spent. Read more in our article: What are Purchasing Power Parity adjustments and why do we need them?

SOURCE: Adapted from (Our World in Data, 2023).

The socio-demographic profile of a typical digital nomad is mostly independent workers, with experience and professional activity in areas of technology, who work for other companies, or as freelancers or are entrepreneurs (Borges et al., 2022; Garcez et al., 2022). The results presented corroborate the results found in the literature.

5. FINAL CONSIDERATIONS

In the current social context, it's important to note that digital technologies and tourism are interconnected in various ways. On the one hand, they enable the provision of tourism services, sales, and increased knowledge. On the other hand, they facilitate mobility and the emergence of new professionals who can perform their activities anywhere in the world. As mentioned by Correia et al. (2022), digital nomads represent a new lifestyle in which creating and generating value is essential. In this new segment, characterized by regular travel and a search for inspiring environments and places, there are new opportunities and challenges for organizations to hire their services, the locations where they stay, and the governmental entities of the regions hosting them.

From a market opportunity perspective, it is essential to understand the profile of digital nomads and their needs to develop a strategy that provides added value and addresses those needs. As observed from the data analysis, the

characteristics of these visitors (e.g., their region of origin, length of stay, etc.), combined with the high number of digital nomads choosing the ARM as their location to work, can represent a significant source of revenue.

On the challenging side, it will be necessary to create a sustainable balance for the entire ecosystem that is directly or indirectly related to digital nomads. For example, recently, the city of Lisbon has been indicated as a location that falls short of expectations (Ribeiro, 2023). Simultaneously, there is an economic period of inflation with a noticeable loss of purchasing power and a significant increase in prices. Digital nomads represent a niche market that seeks specific services and locations with differentiated needs, therefore their contribution to the regional economy should be considered. To minimize any potential impact, it will be necessary to take a proactive approach and present well-founded strategies and solutions. However, according to the Nomad List platform, in August 2023, Madeira had a rating of 3.95/5 (Nomad List, 2023).

The year 2021 had the highest number of registrations of digital nomads, which can be justified not only by the novelty factor of the Digital Nomads Village project but also by coinciding with the period of the COVID-19 pandemic. Despite being a robust sample, it should be noted that, although the Digital Nomads Village project boosted the increase in the number of digital nomads in Madeira, our sample (as it is not probabilistic) may not be very representative of all digital nomads who choose the region to carry out their work. Therefore, it can be inferred that there are more digital nomads than those registered in the Digital Nomads Madeira Islands' project. For example, in 2022, on the Nomad List platform, the number of digital nomads in Madeira exceeded 20,000 (Nomad List, 2023). Considering an estimate of 2,000 monthly digital nomads and a monthly expense of 2,000 euros for each, according to the Nomad List (2023), it can be deduced that the DNMI had an impact of 4 million euros, mostly on local businesses, in terms of accommodation, catering, transport, leisure, among others. On the other hand, considering the current configuration of the business fabric in Portugal and particularly in the ARM, this value represents a huge and important contribution to tourism.

It was observed that a significant portion of the digital nomads were entrepreneurs, which could represent opportunities for investment in Madeira's business sector. Regarding the regions from which digital nomads originate, it was found that the project attracted digital nomads from all over the world, spanning over 135 different countries. To ensure the continuous flow of this type of tourists/workers, it is important to ensure and strengthen mobility with direct flights. It was also noted that the regions with the highest number of digital nomads are geographically closer to Madeira and have a higher GDP.

5.1. THEORETICAL AND PRACTICAL IMPLICATIONS

The conclusions of this study on the presence of digital nomads in Madeira are noteworthy and are supported by concrete research data. The main implications of this study are as follows:

- Transformation in the Digital Work Environment: Technological advancement and proliferation of digital environments have profoundly changed the nature of work. For example, the peak of digital nomads in 2021 (68%) illustrates remarkable growth, while the decrease to 31% in 2022 highlights the volatility of this phenomenon, influenced by global events.
- The Era of Knowledge Workers: The emphasis on valuing work based on results, rather than the number of hours worked, is in line with the predominance of the age group "between 31 and 40 years" (40%) among digital nomads, suggesting that this approach is particularly adopted by this demographic group.
- Digital Nomads: Most digital nomads originate from Europe and North America (over 75%), emphasizing the influence of the high GDPs of these regions, which enables people to adopt this lifestyle.
- The Case of Madeira: The success of the "Digital Nomads Madeira Islands" initiative, with its positive rating on the Nomad List platform, points to a promising model to be followed by regions interested in attracting digital nomads, demonstrating the tangible results of this strategy.

- Trends in Tourism and the Labor World: The relationship between changes in the profile of tourists and the increase in digital nomads suggests opportunities for collaboration between sectors, particularly between tourism and technology, with the aim of optimizing visitor experience.
- Growth Potential: The availability of visas for remote workers in Portugal reinforces the potential for the expansion of these initiatives, generating economic opportunities for regions that invest in digital infrastructure and accommodation. The monthly contribution of digital nomads to the ARM and, concomitantly, to tourism is significant, both in immediate net terms and in terms of indirect benefits.
- Diversity of Digital Nomad Origins: The comprehensive geographical diversity of digital nomads, coming from more than 135 countries, highlights the globalization of this phenomenon and the need to adapt attraction strategies for diverse audiences.
- Entrepreneurial Profile of Digital Nomads: The significant presence of entrepreneurs among digital nomads opens prospects for investment and collaboration in the local business scene.
- Professional Activities: The predominance of the profession "Software and Applications Developers and Analysts" among digital nomads (over 93%) underscores the importance of technology in this context.
- Opportunities and Challenges for Host Regions: The presence of digital nomads brings economic opportunities, and challenges related to balancing tourism and local well-being. Understanding the specific needs of this group is crucial to maximize their potential.

5.2. LIMITATIONS AND FUTURE SUGGESTIONS

This study provides a significant contribution on multiple levels. It is valuable for shaping guidelines and strategies, not only for the Digital Nomads Madeira Islands and Digital Nomads Village projects but also for the tourism sector, which aims for sustainability and prosperity. It serves as a starting point for further research and the development of a deeper understanding of digital nomads who choose Madeira. It is acknowledged that this topic extends beyond the scope of this current research.

It should be noted that the questionnaire may be a limitation, as this method can be subject to distortions, whether intentional or not. Therefore, in future research, it is suggested to use interviews to gather richer and more detailed information about the opinions of digital nomads.

Due to the broad participation in the project and its surpassing of expectations, there has been an increase in professionals (e.g., digital nomads, remote workers, tourists extending their stay for work — bleisure/workation, expats, pre-retirees, or even residents) engaging and interacting with the community in different ways. This reality could be a limitation, as the demographic characterization only applies to those who registered for this project and requested more information. It is suggested to administer a questionnaire that includes a broader range of digital nomads to expand knowledge about them, as well as to investigate the role of community managers in Digital Nomad Villages.

For future research, it is recommended to gain an understanding of the motives and intentions behind choosing Madeira for remote work through interviews or follow-up questionnaires. From an economic perspective, it is advisable to assess the economic impact on Madeira resulting from these tourists/workers.

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ETHICAL STATEMENT