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An AI-Based Sentiment Analysis Study on YouTube Contents Related to Digital Nomadism

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Anahtar Kelimeler

Dijital Göçebe Sosyal Medya YouTube Duygu Analizi Doğal Dil İşleme

Graphical/Tabular Abstract (Grafik Özet)

The research focuses on the emerging mode of digital nomadism. YouTube is a platform that digital nomads often use to communicate through social media. The study specifically examines how this concept is represented in audio-text transcriptions of YouTube videos selected based on searches using positive and negative keywords. We analyzed the topics in these videos by calculating an impact score derived from the number of views and made recommendations based on these findings (Figure A). This study reveals important insights when looking at the current experiences of a new class of tourist workers - digital nomads - through the lens of social media. / Araştırma, yeni ortaya çıkan dijital göçebelik moduna odaklanmaktadır. YouTube, dijital göçebelerin sosyal medya aracılığıyla iletişim kurmak için sıklıkla kullandıkları bir platformdur. Çalışma, özellikle bu kavramın olumlu ve olumsuz anahtar kelimeler kullanılarak yapılan aramalara dayalı olarak seçilen YouTube videolarının ses-metin transkripsiyonlarında nasıl temsil edildiğini incelemektedir (Şekil A). Bu videolardaki konuları, izlenme sayılarından elde edilen bir etki puanı hesaplayarak analiz ettik ve bu bulgulara dayanarak önerilerde bulunduk. Bu çalışma, yeni bir turist işçi sınıfının - dijital göçebelerin - mevcut deneyimlerine sosyal medya merceğinden bakarken önemli içgörüler ortaya koymaktadır.

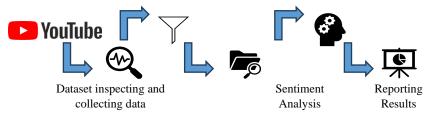


Figure A: Study Steps / Şekil A: Çalışma Adımları

Highlights (Önemli noktalar)

- > The number of represent a type of tourist-worker group digital nomads has reached approximately 40 million (Bir tür turist-işçi grubunu temsil eden dijital göçebelerin sayısı yaklaşık 40 milyona ulaşmıştır).
- Digital nomads, who move almost every year, look for digital nomads like themselves to search for the following location and use social media platforms in this communication (Neredeyse her yıl yer değiştiren dijital göçebeler, bir sonraki lokasyonu araştırmak için kendileri gibi dijital göçebeleri aramakta ve bu iletişimde sosyal medya platformlarını kullanmaktadır).
- The positive and negative criteria that stand out in the location preferences of digital nomads are given in the findings section by examining the videos / Dijital göçebelerin konum tercihlerinde öne çıkan olumlu ve olumsuz kriterler videolar incelenerek bulgular bölümünde verilmiştir.

Aim (Amac): In this study, by analyzing the audio-text transcripts in YouTube videos using data mining, it is aimed to examine what is told about digital nomadism in the most watched videos on YouTube and to make suggestions in the light of the findings. / Bu araştırmada, YouTube videolarındaki ses-metin transkriptleri veri madenciliği kullanılarak analiz edilerek Youtube üzerinde en çok izlenen videolarda dijital göçebelikle ilgili neler anlatıldığının incelenerek bulgular ışığında öneriler yapılması amaçlanmıştır.

Originality (Özgünlük): The research is the first study on the selected topic in terms of analysis approach on YouTube content / Araştırma YouTube içerikleri üzerinde analiz yaklaşımı açısından seçilen konuda yapılan ilk çalışmadır.

Results (Bulgular): The most watched videos focus on topics of interest to digital nomads, such as low cost, high living comfort, climatic attractiveness, loneliness, social isolation. / En çok izlenen videolar düşük maliyet, yüksek yaşam konforu, iklimsel çekicilik, yalnızlık, sosyal izolasyon gibi digital göçebelerin ilgisini çeken konulara ağırlık vermektedir.

Conclusion (Sonuç): The research results provide significant findings for policymakers / Araştırma sonuçları politika yapıcılar için önemli bulgular sunmaktadır.



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An AI-Based Sentiment Analysis Study on YouTube Contents Related to **Digital Nomadism**

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Abstract

This study examines the positive and negative trends in YouTube videos on "Digital Nomadism" through text analysis. After preprocessing, the audio recordings of the YouTube videos selected as the data set were transcribed and analyzed using Python's NLTK (Natural Language Toolkit) libraries. Thematic topic extraction was performed using the NLP (Natural Language Processing) feature of ChatGPT, one of the significant LLMs (Large Language Models). The thematic summarization function was performed via ChatGPT with a prompt prepared in this context. Audience impact scores of the positive and negative topics in the video texts were calculated based on the word frequency score and the number of views of the videos. The video dataset, it was observed that videos emphasizing positive topics such as freedom, travel advantages, adventure, discoveries, cost of living, knowledge transfer, climate and cultural attractiveness, cultural richness, cultural interaction, economic contribution to the region, quality and low-cost nutrition, food and beverage quality, digital robust infrastructure, high comfort and quality of life, connected business network, cleanliness and hygiene issues, presence and quality of co-working spaces had more viewers. On the negative side, some of the destinations preferred by digital nomads, such as Nosara, Bali, and Peepa, are crowded cities, adaptation problems due to cultural differences, working conditions such as heat and humidity, loneliness, being away from family, lack of fixed income for a stable life, and problems with international money transfers for accommodation. Finally, in light of the findings, recommendations that can provide potential benefits, such as regional development and increasing tourism revenues, are shared with the public about appropriate examples from around the world.

Dijital Göçebelikle İlgili YouTube İçerikleri Üzerine Yapay Zekâ Tabanlı Bir Duygu Analizi Çalışması

Makale Bilgisi

Araştırma makalesi Başvuru: 20/11/2024 Düzeltme: 07/12/2024 Kabul: 08/12/2024

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Öz

Bu çalışma, "Dijital Göçebelik" konulu YouTube videolarındaki olumlu ve olumsuz eğilimleri metin analizi yoluyla incelemektedir. Veri seti olarak seçilen YouTube videolarının ses kayıtları ön işlemden geçirildikten sonra Python'un NLTK (Natural Language Toolkit) kütüphaneleri kullanılarak yazıya dökülmüş ve analiz edilmiştir. Tematik konu çıkarımı, önemli LLM'lerden (Büyük Dil Modelleri) biri olan ChatGPT'nin NLP (Doğal Dil İşleme) özelliği kullanılarak gerceklestirilmistir. Tematik özetleme islevi ise bu kapsamda hazırlanan bir istem ile ChatGPT üzerinden gerçekleştirilmiştir. Video metinlerinde yer alan olumlu ve olumsuz konuların izleyici etki puanları, kelime sıklığı puanı ve videoların izlenme sayıları baz alınarak hesaplanmıştır. Video veri setinde özgürlük, seyahat avantajları, macera, keşifler, yaşam maliyeti, bilgi transferi, iklim ve kültürel çekicilik, kültürel zenginlik, kültürel etkileşim, bölgeye ekonomik katkı, kaliteli ve düşük maliyetli beslenme, yiyecek ve içecek kalitesi, dijital sağlam altyapı, yüksek konfor ve yaşam kalitesi, bağlantılı iş ağı, temizlik ve hijyen konuları, ortak çalışma alanlarının varlığı ve kalitesi gibi olumlu konulara vurgu yapan videoların daha fazla izleyiciye sahip olduğu görülmüştür. Olumsuz tarafta ise Nosara, Bali ve Peepa gibi dijital göçebelerin tercih ettiği bazı destinasyonların kalabalık şehirler olması, kültürel farklılıklardan kaynaklanan adaptasyon sorunları, sıcak ve nem gibi çalışma koşulları, yalnızlık, aileden uzak olma, istikrarlı bir yaşam için sabit gelirin olmaması ve konaklama için uluslararası para transferlerinde yaşanan sorunlar yer alıyor. Son olarak, bulgular ışığında bölgesel kalkınma ve turizm gelirlerinin artırılması gibi potansiyel faydalar sağlayabilecek öneriler, dünyadan uygun örneklerle kamuoyu ile paylaşılmıştır.

1. INTRODUCTION (GİRİŞ)

Migration and nomadism are two types of mobility that have slight differences in terms of the way they are applied. However, their origins date back to the same periods as the existence of human beings, and they have continuity from past to present for different reasons and on different routes. Immigrants strive to integrate into society in the country they come from to establish a new life. In this process, they profoundly impact their lives and the social and economic structure of the country they migrate to [8-21]. While immigration aims to settle permanently in the new settlement, nomadism continues to live a life that aims to settle for a temporary period. Nomadism was a common way of life before the agricultural revolution and is still maintained by some communities today. Nomads move depending on the seasons or the migration routes of animals. Nomadism usually occurs in a particular order, and this order is part of the community's way of life [17]. For this reason, nomads have adopted a way of life that constantly changes places at short intervals.

In addition to traditional nomadism, digital nomadism has been mentioned recently, but the roots of the definition of this concept date back to 1997. Tsugio Makimoto and David Manners sowed the seeds of the concept of digital nomadism in their book "Digital Nomad", which coincides with a time when information technologies are not yet pervasive and can be considered in their infancy, and have predictions, and have been able to put forward an explanatory vision for the new generation of digital life to be lived in the future. According to the authors, thanks to the new technologies that will develop, the concept of standard working hours and the perception of the office will change, revealing a new lifestyle called digital nomadism in the future [20].

Digital nomads often combine remote work and travel for various reasons and durations. Passionate about new adventures, they know how to get the most out of new technologies and only need an internet connection to work from anywhere in the world. It has been reflected in various reports that approximately 40 million digital nomads will be living in the world by 2024. According to a 2023 study, more than half of the digital nomads surveyed worldwide are between 30 and 39. People from this age group comprise about 53 percent of the sample, while 22 percent of the digital nomads surveyed are under 30. As of March 2024, U.S. digital nomads are the most representative members of the global digital nomad community, representing almost half

of worker travelers. Female digital nomads, usually self-employed, mainly work in the marketing and creative sectors, while men work more as software or web developers. Unlike business travelers who go to a fixed location, digital nomads can choose their destination as they see fit. However, their selection is often based on specific criteria. According to a global online survey, the cost of living and a fast, accessible internet connection were the two main factors in choosing a destination among the digital nomad community in 2022. The research also revealed that crime rate and environmental safety also play a decisive role in the decision-making process of digital nomads when looking for a destination [29].

Digital nomadism has added a new dimension to the traditional concept of nomadism. Digital nomads are defined as being constantly on the move despite living in various countries for short periods, thanks to their geographical independence. This creates new opportunities and challenges for both individuals and countries. Since digital nomads generally work in highly skilled and technology-oriented jobs, they make significant contributions to the countries they go to in terms of economics and knowledge [24-26].

Digital nomads are remote workers who typically work in tech fields such as web design, programming, or online marketing [29]. They travel the world, taking advantage of remote work. Unlike telecommuters of past years, who worked from home using their remote work flexibility, lowered transportation costs, avoided office-based distractions, and provided convenient scheduling for childcare, digital nomads choose their location based on leisure considerations rather than employment [24].

Digital nomads prioritize data privacy and security; therefore, it is necessary to develop safe technological solutions for them [6-7]. Especially after the COVID-19 pandemic, it has become vital provide secure and convenient working environments that digital nomads can opt for. Regulations for digital nomadism should focus on areas such as visa and accommodation flexibility, job security and benefits, intelligent destination strategies, co-working spaces, and technological infrastructure. These regulations can be essential steps in improving working and living conditions to attract digital nomads and ensure the sustainability of this new working model for local people, companies, and local and central governments. In this context, the characteristics and needs of digital nomads reflect the changes and opportunities in the modern working world. Digital nomads can continue to work in different geographical regions thanks to flexible working hours and spaces. However, these flexibilities require establishing specific regulations and infrastructure [33].

When both the literature and the reports published by the authority institutions and organizations with which information is shared on this subject are examined, it has been observed that digital nomadism is now a type of work today and attracts attention day by day. For example, the Montenegro government has decided to make Montenegro an attractive destination for digital nomads by 2025, with the prediction that it will contribute to the region's development within the framework of the 2022 Action Plan [12].

Existing research on digital nomadism has explored various aspects, including work-life balance, theoretical foundations, tourism typologies, and bibliometric analyses, yet significant gaps remain in the study of YouTube content created by digital nomads. While some studies (e.g., Taşdelen [30] and Akgün [1]) examine community platforms like Nomad List and Reddit or analyze travel vloggers in the context of cultural diplomacy, none focus explicitly on how YouTube content contributes to understanding digital nomadism or influences its perception. This indicates a research opportunity to analyze YouTube's role as a key medium for digital nomads in shaping public perceptions, sharing practical insights, and enhancing the field's theoretical understanding.

Within the scope of our research, video content produced by platform users on YouTube, one of today's popular social media platforms, was analyzed by text mining and sentiment analysis methods, and it was tried to determine how this issue is handled and what its effects are. Alpowered tools enable fast and practical analysis of large data sets [5]. For this reason, auxiliary artificial intelligence tools were used in some of the analysis processes. The results obtained contribute to a better understanding of the issue of digital nomadism and can also support the decision-making of top policymakers.

The remainder of the paper is organized as follows. First, the relevant literature is reviewed, and the research contribution is summarized. Then, the data, basic measurements, and methodologies used in the empirical analysis are described. The results are presented, and their managerial implications are discussed. Finally, the analysis concludes with an

overview of the study's limitations and suggests directions for future research.

2. CONCEPTUAL FRAMEWORK AND RELATED STUDIES (KAVRAMSAL ÇERÇEVE VE İLGİLİ ÇALIŞMALAR)

This section will discuss the concept of digital nomadism, the impact and importance of social media on digital nomadism, sentiment analysis issues, and related studies.

2.1. Digital Nomadism (Dijital Göçebelik)

The term "Digital Nomad" was first used by Makimoto and Manners in their manifesto about the revolutionary lifestyle changes made possible by the advent of the internet. Twenty years after their publication, the internet has indeed created the possibility of remote work for those working in computer design and online marketing, and the saturation of internet connectivity in leisure and business life is blurring. Digital nomads often prefer to work in co-working spaces, which allows them to make social connections and expand their professional network [31].

Rejecting traditional business models and sedentary lifestyles, digital nomads travel frequently to discover new places, cultures, and people and conduct all their work digitally [15].

Furthermore, Reichenberger suggests flexibility in visa and accommodation arrangements for digital nomads, as digital nomads often travel and live in different geographical regions for short periods [28]. This is directly related to digital nomads frequently traveling between countries and working in various geographical areas. Aroles et al. highlight digital nomads' uncertainties regarding job security and benefits. Therefore, it is necessary to establish appropriate legal framework for digital nomadism [4]. Regulating issues such as protecting workers' rights, insurance, and social security is essential for the sustainability of digital nomadism and the well-being of nomadic workers. Zhou et al. emphasize the necessity of developing innovative destination strategies that attract and support digital nomads [33]. These strategies should provide solutions for digital nomads' work, travel, social life, finances, and basic needs. Matsushita and Michaud et al. theorize that developing suitable coworking spaces and technological infrastructure for digital nomads is essential [22-23]. Digital nomads often balance work and travel, expressing a need for specific spaces for both activities. These spaces should have infrastructure that allows digital nomads to work and run their businesses efficiently. Since travel is an integral part of the lifestyle of digital nomads, tourism research is a natural starting point for examining digital nomads. As the number of digital nomads increases every year, the tourism potential created by this group also increases. This tourism potential created by digital nomads creates excellent potential for countries such as Estonia and Barbados today. Since the working rate with remote access will increase even more, this potential is expected to grow gradually [18].

It has been reflected in various reports that approximately 40 million digital nomads will be living in the world by 2024. According to a 2023 study, more than half of the digital nomads surveyed worldwide are between 30 and 39. People from this age group comprise about 53 percent of the sample, while 22 percent of the digital nomads surveyed are under 30. As of March 2024, U.S. digital nomads are the most representative members of the global digital nomad community, representing almost half of worker travelers. Female digital nomads, usually self-employed, mainly work in the marketing and creative sectors, while men work more as software or web developers. Unlike business travelers who

go to a fixed location, digital nomads can choose their destination as they see fit. However, their selection is often based on specific criteria. According to a global online survey, the cost of living and a fast, accessible internet connection were the two main factors in choosing a destination among the digital nomad community in 2022. The research also revealed that crime rate and environmental safety also play a decisive role in the decision-making process of digital nomads when looking for a destination [29].

Google Trends Search tool provides statistics on search results for given keywords. In this context, the last 5 years regarding the keyword "digital nomad" were examined, and the trend graph is given in Figure 1, the distribution of searches by country is given in Figure 2, and the content related to the searches is given in Figure 3 [36]. According to the results, it is clear that there is an increasing interest in this topic from year to year. Generally, countries such as Montenegro and Georgia, Portugal Golden Visa, living conditions of the countries, and financial issues can be mentioned in the light of the research results.

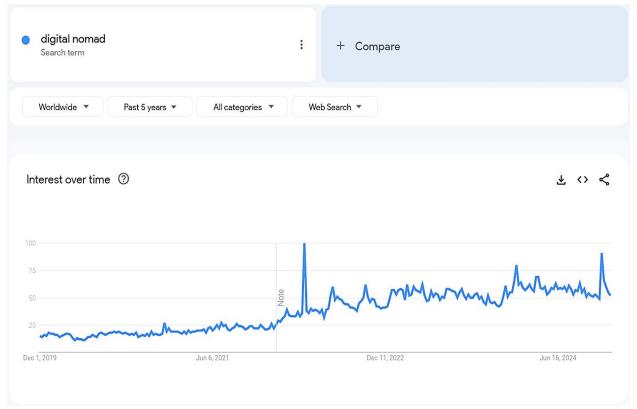


Figure 1. Google Trends data from the past five years [36] (Son beş yılın Google Trends verileri)

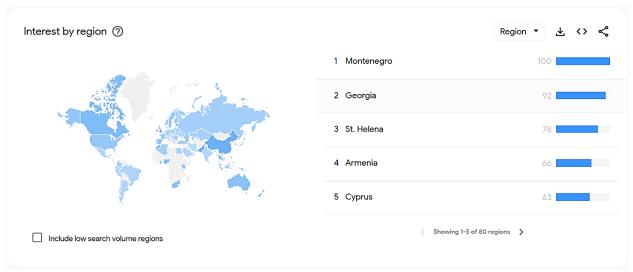


Figure 2. Google Trends tool country distributions in the last five years [36] (Son beş yılın Google Trends verilerinin ülke dağılımları)

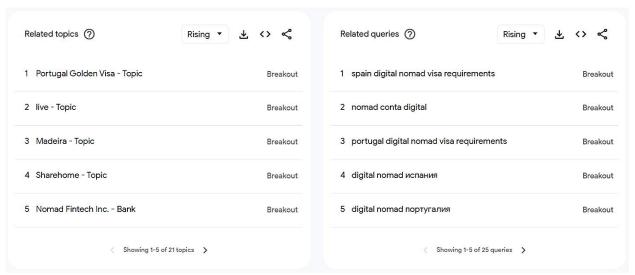


Figure 3. Google Trends tool keywords of the last five years [36] (Son beş yılın Google Trends verileri anahtar kelimeleri)

2.2. The Impact of Social Media on Digital Nomadism (Dijital Göçebelikte Sosyal Medyanın Etkisi)

The concept of digital nomadism has found a vast place in recent years, especially on social media platforms such as YouTube, and digital nomads have started to share their experiences and lifestyles through these platforms. YouTube has become an essential medium for digital nomads to share their stories, tips, and challenges [24].

This lifestyle offers a variety of advantages and challenges for individuals and societies. Digital nomads have not learned the languages or traditions of their host countries, such as those in Southeast Asia or South America, which are often preferred destinations. Therefore, they seek out other digital nomads through online platforms [31].

Digital nomads, with their increasing number in recent years, refer to a new type of tourist-worker group that works independently of time and space but also travels. They contribute economically to the countries they visit and are in intensive communication with their communities before visiting the destinations. Digital nomads receive advice about the destinations they want to go to. In this respect, the mobility of countries in terms of image perception is meaningful [30].

Cultural diplomacy is an approach that has gained popularity with the rise of governmental and non-governmental actors in the promotion of countries. Digital nomads, who are among the actors of cultural diplomacy and can be referred to as "intellectual workers", can share the cultural, political, economic, etc. structures of the countries they travel to with their followers [1].

According to a study by Kocaman, digital nomads are defined as online travelers who frequently use social media, and the distinction between work and leisure is blurred [18].

Many elements contribute to the recognition of countries, such as their interactiveness and attractiveness. The fact that the posts made through social media reach many people in a short time makes the posts of digital nomads especially important. Travel vloggers can share the places they visit with their followers via their vlogger account wherever there is an internet connection. As can be seen, digital nomads constantly travel, discover new places, edit their shared content, and share it on social media networks. Digital nomads can earn money according to the number of interactions (number of followers, views, comments, saves, likes). At the same time, digital nomads can earn money through brand collaborations while sharing their travel experiences

For digital nomads and businesses, social media is a practical and effective tool with various functions, such as finding potential jobs and customers, carrying out advertising and promotional activities, and increasing brand value and awareness. The growth of social media for digital nomad systems is listed as follows:

- Social media allows digital nomads to share sponsored content and advertising with collaborations.
- Using up-to-date and active social media accounts is essential for increasing the number of followers and creating new business combinations.
- Social media is essential for creating a brand image and increasing awareness.
- They provide social networks and interact with businesses and other users by joining existing networks.
- They capture their experiences with different options thanks to feedback such as suggestions, requests, and complaints.

As mentioned above, social media, both an effective promotional tool and a direct business area for digital nomads, is also gaining importance. In addition to establishing their professional identities and prestige, digital nomads actively use social media to commodify their work, travel, and life experiences [15]. The Google Trends tool gives us an idea about this. According to the Google Trends tool records, the search trend for the keywords "digital nomad" and "digital nomads" on YouTube in the last 5 years is given in Figure 4, and the country and topic distribution of these searches is given in Figure 5 [36]. In light of this information, it is seen that the topic of digital nomads has been increasing interest on the YouTube social media platform from year to year.

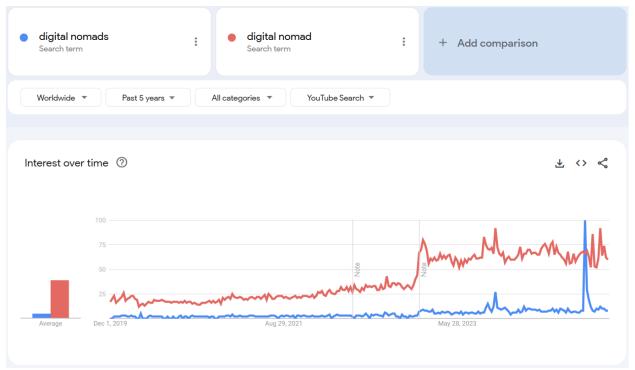


Figure 4. The Trend of "Digital Nomad" and "Digital Nomads" keywords Google Trends search of the last five years [36] ("Digital Nomad" ve 'Digital Nomads' anahtar kelimelerinin son beş yıldaki Google Trends araması trendi)

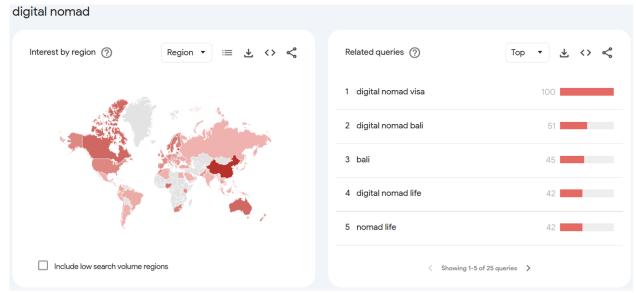


Figure 5. Distribution of the keywords "Digital Nomad" and "Digital Nomads" by country and query words in Google Trends searches of the last five years [36] ("Digital Nomad" ve 'Digital Nomads' anahtar kelimelerinin son beş yıldaki Google Trends aramalarında ülkelere ve sorgu kelimelerine göre dağılımı)

2.3. Sentiment Analysis (Duygu Analizi)

The internet's emergence has transformed how information is managed and interactions are conducted, enabling the collection of preferred information from multiple sources and its direct reading from computer screens. Individuals consume existing content and actively contribute by adding comments and generating new information. This allows individuals to assume both the role of readers and writers. Furthermore, through various social networks on the internet, individuals can share their opinions, news, and information with the broader public. Emotions significantly influence people's lives, and communication helps better understand their needs and preferences [10].

Sentiment analysis aims to extract emotional words from texts and determine whether the analyzed text is positive, negative, or neutral [13]. Due to market research and commercial use, sentiment analysis has gained significant importance recently. Using machine learning algorithms enables researchers to model users' opinions [9]. Sentiment analysis automatically calculates whether a text written on a specific topic has positive, neutral, or negative emotions [34]. Academic and commercial software available in English on this subject are available. Sentiment analysis of Turkish texts has also begun to be studied more recently [2].

Natural Language Toolkit NLTK is a platform developed to create Python programs for human language data. It includes working in text processing sections for classification, tokenization, stemming, tagging, parsing, and semantic reasoning. Before working with the Natural Language Processing Library NLTK Library, stopword prefixes and suffixes of words should be cleaned. For text classification operations, the frequency of occurrence of the word in the text can be converted to numerical data with the TF-IDF (Term Frequency-Inverse Document Frequency) method [13].

As a result, sentiment analysis has gained considerable popularity as a research field in recent years. In its broadest definition, Sentiment analysis involves interpreting and classifying the author's thoughts from a text. NLTK is a popular library used for natural language processing (NLP) projects in Python. It is used for various NLP tasks, including language analysis, text classification, word stemming, and more, and provides a range of methods and resources for efficiently processing textual data. NLTK also includes valuable functions for preprocessing text tasks, such as tokenization, stop word removal, and stemming. Tokenization involves breaking raw text into smaller units, or tokens, which is critical in understanding context and building natural language processing models. Word clouds are commonly used in text analysis or data visualization studies to quickly identify frequently used or notable words in a text. By visually representing these words, with more significant or prominent words indicating higher frequency, they help highlight the text's key concepts, themes, or trends [10].

2.4. Related Studies (İlgili Çalışmalar)

Reichenberger has studied the lifestyles of digital nomads and how this lifestyle affects the balance between work and play. Digital nomads can better balance work and life thanks to flexible working hours and possible relocation. This lifestyle increases individuals' job satisfaction and quality of life [28].

The study by Düzgün & Akın aims to reveal the theoretical foundations of digital nomadism and evaluate digital nomadism as a tourist typology [11].

The research conducted by İli & Büyükbaykal aims to reveal the importance of digital nomads, which have emerged as a new professional entrepreneurship model, a new tourist typology, and essentially an alternative lifestyle, by presenting a bibliometric analysis of studies on digital nomads indexed in the Scopus database [14].

The study conducted by Kocaman aims to discuss the equivalent of the conceptual expression accepted as "digital nomad tourism" in the international literature and to create a broad conceptual framework for the tourism potential of this concept that is rapidly developing with digitalization. Within the scope of the study, archive-document scanning and literature review methods from qualitative data collection methods were used together [18].

The purpose of the research conducted by Taşdelen was to try to understand Turkey's image from the perspective of digital nomads. This research collected data from the Nomad List site and the Reddit digital nomad community, which digital nomads actively use, and chose content analysis from the qualitative analysis strategies [30].

The aim of the study by Yılmaz & Güzel Gürbüz, studies on digital nomads in the literature were examined, and the document analysis method was preferred for evaluation. This study emphasized that the new concept of digital nomads is increasing daily, and their relationship with recreation is better understood [32].

Within the scope of the research conducted by İli & Büyükbaykal, a detailed literature review was conducted on the concept of digital nomads, and by conducting a qualitative analysis with MaxQDA, it was determined that the studies were handled within a limited framework. This research aims to explore the trends towards digital nomads, whose numbers

are increasing today, and to reveal the importance of the community today and in the future [15].

The aim of the study by Özyürek et al. is to provide a comprehensive review of research on digital nomads, focusing mainly on open-access articles published in English, to track the evolution of research in this field and to provide a detailed description of gaps and future research opportunities [27].

The first aim of the research conducted by Akgün is to provide a different perspective on the digital nomad literature that has recently become prominent in Turkey. The second aim is to evaluate the costs of travel vloggers who share their experiences in Turkey with their followers, which were determined through homogeneous sampling in the context of cultural diplomacy [1].

3. RESEARCH METHOD (ARAȘTIRMA METODU)

Today, it is seen that it is increasingly common to carry out scientific research using a mixed method. The mixed method is an approach that aims to make comprehensive explanations by combining qualitative and quantitative research elements. This method aims to achieve holistic results by using the strengths of quantitative and qualitative designs. Nayir et al. used a mixed methods research approach as a research design, in which quantitative and qualitative analyses are carried out together [25].

This study used some applications, including the Natural Language Tool Kit (NLTK) library developed by the researcher with Python programming language, to perform word frequency analysis of audio texts in social media videos. The analysis process consists of the following stages:

Data Collection: Audio texts from video content determined as a YouTube social media platform dataset were collected as text files. These files were used as a data source to examine user interactions reflecting the content of the videos.

Data Pre-Processing: The collected text data has been pre-processed to make it suitable for analysis. At this stage, unnecessary punctuation marks, memorable characters, and stop (short) words that do not add meaning (such as conjunctions and prepositions) are removed from the texts. This process helped to obtain meaningful groups of words more accurately in the analysis.

Word Frequency Analysis: Pre-processed texts are stored in Python's collections. It was analyzed using the "counter" class and the "NLTK" library to determine word frequencies. At this stage, the texts' most frequently used words and word groups were determined by bi-gram analysis, and the frequencies of these words were calculated. Bi-gram analysis is preferred because the binary words and their contexts in the texts need to be analyzed together.

The obtained word frequencies were used to determine which topics were prominent in social media videos and which themes users focused on. The analysis process was carried out as follows:

Determination of Frequency-Dependent Impact Score: After calculating the word frequencies, the effectiveness score of each word or word group (n-gram, bi-gram) was determined depending on the number of viewers of the video. This way, the effectiveness of the prominent words in the videos users watch was examined most.

Visualization of Data: The obtained word frequencies were visualized by creating a word cloud for positive and negative phrases to provide a better understanding. This visual representation presented the most frequently used words and groups of words in a visual format, making the study findings more understandable.

Interpretation of Results: Word frequency analysis and visualization results were used to analyze the content of social media videos and to understand user behavior better. These findings can serve as an essential reference source in content analysis on social media platforms.

ChatGPT, a chatbot being developed by OpenAI, has the potential to change our interaction with technology significantly. The essential skill of the ChatGPT chatbot is that with the help of the large amount of data he processed during his education, he can understand texts with high accuracy, even to the extent that it can be said to be almost human and to produce new texts. Artificial intelligence has many reliable capabilities regarding information processing and business execution. Language models such as ChatGPT can summarize academic papers and help advance the field of librarianship [16]. Despite their inherent limitations, with the right tools and approaches, AI and natural language processing technologies significantly increase efficiency and effectiveness in many areas, lead to discoveries and insights, and have the potential to perform tasks such as shaping the future [3]. Since artificial intelligence-supported tools enable the

rapid and practical analysis of large data sets Bird, Klein, & Loper (2009), artificial intelligence tools have been used as facilitators and accelerators in data processing to be discussed within the scope of our research. Large language models (LLMs), especially ChatGPT, have attracted global attention since their inception. Using LLMs for abstract screening in systematic reviews is an innovative concept. Of the LLM tools compared in the study, ChatGPT v4.0 demonstrated excellent performance in three test scenarios, achieving at least 85% accuracy. It also achieved sensitivity and specificity rates ranging from 80% to 95%. These outstanding results highlight the significant promise of LLMs in abstract screening, offering a practical and capable alternative to traditional, laborious approaches that often require extensive human annotation [35]. In this context, using the ChatGPT web interface, it was requested to analyze the text data within the scope of the prompt determined below:

"An audio transcript of selected user-generated social media videos is provided in the text below. In this context, summarize the most important information in the text and list the results containing the positive and negative concepts most emphasized in the text. Here is the text: ..."

Text theme analyses of the videos, our data set, were carried out through this prompt from the ChatGPT website interface. After the fact-checking of the researcher, the impact analysis calculation was made on the thematic subjects, which was determined depending on the word usage frequencies determined in the previous stage.

Our formula used in this context is as follows:

- Word Frequency: This number refers to the number of times the word is mentioned in the video audio text.
- Number of Viewers of the Video: The data of how many people watched the video.
- Total Viewers: The total number of viewers for all the videos in the data set.

Impact Score:

Word Frequency * ((Number of Viewers of the Video/Total Number of Viewers)*100)

All numerical and visual data obtained from the examination are presented in our findings section.

3.1. Purpose of The Research (Araştırmanın Amacı)

Digital nomads change places frequently, and during this process, they research the following

locations on social media and make decisions based on the experience and advice of other nomads. The primary purpose of this research is to analyze the positive and negative aspects of how the issue of digital nomadism is handled in the content produced by YouTube social media platform users and to present the results to the public. In addition, in light of the findings to be obtained, suggestions that can contribute to the development of digital nomad visa policies will be reported. The results will be revealed, especially for government policies. Our research questions are determined as follows:

- **RQ1.** How is digital nomadism handled in content produced by YouTube users?
- **RQ2.** What are the positives and negatives in the videos that digital nomads are interested in?
- **RQ3.** What are the main characteristics of the locations that digital nomads often choose or give up?

3.2. Data Set (Veri Seti)

Digital nomadism, gaining popularity, especially on platforms like YouTube, allows individuals to share their experiences, offering both opportunities and challenges [24]. Digital nomads often do not integrate deeply into local cultures and rely on online communities for support [31]. They contribute economically to host countries and influence their image through cultural diplomacy, acting as "intellectual workers" who share insights on social, economic, and political structures [1-30]. This lifestyle blurs the line between work and leisure, with social media enabling them to earn through content engagement and brand collaborations [1-18]. In our research, groupings were made to determine the video content to be examined, and the "positive" and "negative" keyword phrases were determined by the researcher inspired by the existing literature. Selected keyword phrases are presented in Table 1.

Table 1. Positive/negative keyword phrases used in YouTube search^(*)(YouTube aramasında kullanılan olumlu/olumsuz anahtar kelime öbekleri)

Keyword Phrases with	Keyword Phrases with
"Positive" Phrases	"Negative" Statements
"digital nomads"	"digital nomads"
advantages	disadvantages
"digital nomads" start	"digital nomads" stop
"digital nomads"	"digital nomad"
benefits	problem
"digital nomads"	"digital nomad" why
suitable	
"digital nomads"	"digital nomads"
dream	leaving
"digital nomads" best	"digital nomads"
	should not
"digital nomads"	"digital nomad" reality
cheap	
"digital nomads"	"digital nomads" dark
livable	side
"digital nomads"	"digital nomads" scary
guide	
"digital nomads"	"digital nomads" lies
comfortable	
(*) C + 11 d - d	

^(*) Created by the author.

The videos that will be the subject of the analysis were searched using the YouTube search engine on August 8, 2024, using positive and negative phrases. In the results listed for each keyword, the "most interesting" option was chosen from the search ranking algorithms offered by YouTube, and the top 3 videos were selected as the data source in the research. Thus, 60 videos, three from each of the ten positive keyword phrases and three from each of the ten negative keywords were selected as data sources for examination. Since some videos are reflected in different search results within the exact phrase, they are deduplicated, and 56 out of 60 video content are determined as data set sources. These videos and their features are presented in Tables 2 and 3.

The audio transcripts of the videos that are the subject of the research provided by YouTube were recorded in text format. In this context, 55 text files obtained by using the relevant videos were recorded by the YouTube_Video_ID_voice_transcript.txt file name example. Our audio transcript research has been shared in the attachments.

Table 2. YouTube videos about positive keyword phrases (Pozitif anahtar kelime öbekleri hakkında YouTube videoları)^(*)

Searched	Video Title	YouTube Video	Publish Date	Duration	View
Words		ID			Count
	5 Advantages of Digital	j7xEEGak6Hk	Jun 9, 2022	2min 25sec	105487
"digital	Nomads				
nomads"	Digital Nomads	UtvIpD1mVUo	Jul 26, 2023	5min 35sec	1568
advantages	Explained		~		1071
	Living as Digital	MV_aRjS26vs	Sep 10, 2022	22min	1054
	Nomads - More Cons			32sec	
	Than Pros? I Asked Digital	Ri1ZmCW5D6M	Jan 1, 2023	11min	629326
	Nomads How They	KIIZIIIC W SDOWI	Jan 1, 2025	56sec	029320
"digital	Make Money Living on			Josec	
nomads"	A Remote Island				
start	How to Become A	tLUTyeLeZb8	Dec 8, 2023	20min	99026
	Digital Nomad for			27sec	,,,=,
	Beginners (Full				
	Tutorial)				
	Asking Digital Nomads	LV81gjNEdc4	Jan 18, 2024	16min	36577
	What They Do for A			31sec	
	Living (Bali, Indonesia)				
	5 Advantages of Digital	j7xEEGak6Hk	Jul 9, 2022	2min 25sec	105487
	Nomads	1 000 0001		0 1 12	11101
"digital	Thailand Vs Digital	bg9f2z69CkA	Apr 3, 2021	9min 43sec	14424
nomads" benefits	Nomads - The Benefits				
belieffts	and The Challenges 5 Reasons Why Digital	tJf5LILK6OM	Jan 29, 2021	7min 05sec	13632
	Nomads Should Come	UISLILKOOM	Jan 29, 2021	/IIIII 03sec	13032
	to Bosnia And				
	Herzegovina				
	Best Place in Europe	3f4QztkOZec	Jun 26, 2023	4min 16sec	8190
"digital	For Digital Nomads?		,		
nomads"	5 INSANELY CHEAP	IHUXp49Xlzg	Jan 8, 2024	12min	320343
suitable	Destinations for Digital			06sec	
	Nomads In 2024				
	12 Best Countries to	2wpH5jCvsvk	Sep 1, 2023	12min	18059
	Live in for Digital			35sec	
	Nomads				
	Living the Digital	8AzXhHfvmwI	Mar 2, 2022	3min 46sec	2564
W.45 - 57 - 1	Nomad Dream in				
"digital nomads"	Greece: Working Abroad in Paradise				
dream	Living the Dream: Why	G020uX9PYSw	Sep 25, 2023	4min 56sec	1595
dicam	Thailand Reigns	G020uA9F13W	Sep 23, 2023	411111 30860	1393
	Supreme for Digital				
	Nomads				
	Top 5 Dream	jAMmGX_HmaA	Mar 7, 2024	2min 59sec	39
	Destinations for Digital		ĺ		
	Nomads Ultimate				
	Guide for Remote				
	Work Paradise				

"digital	Best Place in Europe For Digital Nomads?	3f4QztkOZec	Jun 26, 2023	4min 16sec	8190
nomads" best	10 Best South American Cities for Digital Nomads	78UXDYugEnc	Dec 16, 2022	10min 12sec	13140
	Top 5 Resources for Digital Nomads	xqouSJAGd-A	Jul 3, 2022	6min 09sec	688
"digital nomads"	10 INSANELY CHEAP Destinations for Digital Nomads (From \$13 Per Day!)	TGhWHG8YO5I	Jul 7, 2024	26min 53sec	31010
cheap	10 Most Affordable Countries for Digital Nomads	SnXgFZphndE	Mar 18, 2024	15min 45sec	680
	10 Best Countries in Europe To Live for Cheap - Digital Nomads, Expats, Retirees	VBbOaxJEUe4	Mar 1, 2023	17min 32sec	31501
"digital nomads"	I Asked Digital Nomads How They Make Money Living in Bali	vfvqn77cUYA	Mar 31, 2024	17min 09sec	10277
livable	I Asked Digital Nomads How They Make Money Living in Bali	kfwJcLiW19s	Apr 14, 2024	15min 13sec	5953
	SRI LANKA for Digital Nomads In 2024-DIDN'T EXPECT THIS!!	DCt5N1zQ0	Feb 9, 2024	11min 34sec	24427
"digital nomads"	How to Become A DIGITAL NOMAD In 2024 (3-Month Plan)	FJHkEx0Yotk	Mar 26, 2023	6min 26sec	48749
guide	How to Become A Digital Nomad for Beginners (Full Tutorial)	tLUTyeLeZb8	Now 8, 2023	20dk 27sn	99026
	Pipa Brazil BR A Digital Nomad Guide	kDBYjnNchmg	Nov 3, 2023	10dk 49sn	19217
"digital nomads"	I Lived 30 Days in The PHILIPPINES (Here's What I Think)	Oa0YfFdeY48	May 7, 2023	7dk 42sn	93306
comfortable	Asking Digital Nomads How They Make Money in Bali	QQ4uCPgvaZw	Feb 28, 2024	21dk 20sn	10173
(*)Created by the a	Shift Special "Digital Nomads"	Pzh6qZTfbQA	Jan 9, 2023	12dk 31sn	2560

^(*)Created by the author.

Table 3. YouTube videos about negative keyword phrases (Negatif anahtar kelime öbekleri hakkında YouTube videoları)^(*)

		videolari)()			
Searched Words	Video Title	YouTube Video ID	Publish Date	Duration	View Count
"digital	5 Disadvantages of Digital Nomads	cdxAv1EnVpE	Jun 9, 2022	2min 40sec	137130
nomads" disadvantag	Disadvantages of Being A Digital Nomad	6_ME-zt4oZg	Oct 15, 2019	4min 52sec	27
es	5 Advantages of Digital Nomads	j7xEEGak6Hk	Jul 9, 2022	2min 25sec	105487
	Why We STOPPED Being Digital Nomads	IKEBnNVzd2Q	Mar 3, 2024	13min 35sec	1591
"digital nomads"	Digital Nomad Rant - Stop Lying to People!	mSf-OdzHqGk	Aug 17, 2016	3min 25sec	37393
stop	VLOG 017 - The DARK Side of Being A DIGITAL NOMAD: Why I've Stopped Traveling Full-Time	mu1XN7ABANM	Feb 26, 2020	9min 59sec	59591
"digital nomad"	How Digital Nomads Solve Problems for Companies and Countries	9Pt6WrkLc7U	Apr 19, 2023	6min 02sec	342
problem	The UNTOLD TRUTH About Being A Digital Nomad	k_uVP9h0T_s	May 7, 2023	8min 14sec	1238
	Are Digital Nomads Just Running Away from Their Problems??	3WsSkPe4o4s	Jan 8, 2023	23min 45sec	998
"digital	A Documentary on Digital Nomads: One Way Ticket	XXMnKEKPj3A	Nov 17, 2016	1min 57sec	41481
nomad" why	The Truth About Being A Digital Nomad	s65sozqaE	Feb 11, 2023	6min 42sec	97923
	Working Online and Traveling The World - Digital Nomads DW Documentary	iXGtx-hroKE	Feb 9, 2019	25min 55sec	3176995
"digital nomad"	I AM LEAVING BALI The Digital Nomad's Paradise HAS CHANGED	6Bf9_OAzOzI	Nov 2, 2023	18min 56sec	19276
leaving	Leaving the Country to Become Digital Nomads!	JNDDXRcW8wc	Sep 4, 2017	2min 54sec	417
	4 Reasons Why People Fail in The Digital Nomad Lifestyle	NWiy5wbzPCs	Oct 10, 2018	11min 51sec	72550
"digital nomads"	Why Digital Nomads Should "NOT" Move to Vietnam	LCNLtPhnwH0	Nov 25, 2022	10min 01sec	59847

AND should not	Why I STOPPED Being A Digital Nomad	rBT1q82oJtM	May 27, 2023	6min 24sec	519592
	Why People Don't Like Thailand Anymore	ofcY3eYqKnA	Jul 4, 2024	14min 46sec	168889
"digital nomads"	Being A DIGITAL NOMAD - Expectations VS Reality	OmH4yIfowzg	May 12, 2022	8min 11sec	403142
AND reality	Life as A DIGITAL NOMAD - Expectations Vs Reality	p-PKh2x20Rs	Oct 14, 2022	4min 16sec	37480
	Digital Nomads: Why Remote Workers Are Flocking to A Bulgarian Mountain Town	kjgHgYpNGHM	Nov 25, 2023	7min 08sec	15451
"digital	The Dark Side of Digital Nomads	-yOFJ51SNGE	May 25, 2021	6min 17sec	6794
nomads" dark side	The DARK Side of Digital Nomads - Tech Nomad in Costa Rica	Q56JeXUoL-w	Mar 15, 2022	10min 27sec	1080050
	The Dark Side of Becoming A Digital Nomad	tvuVIm7ZVWQ	Nov 20, 2022	9min 19sec	6045
	5 Scary Truths About the Digital Nomad Life	J1D-ld1PJWM	Jun 24, 2023	11min 27sec	228190
"digital nomads" scary	What Might Scare You About Digital Nomads: Are They Legit?	wkeDQzJKIh0	Feb 17, 2022	5min 17sec	13
	10 Scary Truths About Digital Nomad Life Digital Nomad Lifestyle Nomadic Lifestyle	JPhLcLNHAsQ	May 27, 2024	8min 07sec	61
	Digital Nomad Rant - Stop Lying to People!	mSf-OdzHqGk	Aug 17, 2016	3min 25sec	37393
"digital nomads" lies	5 LIES They Don't Tell You About Being A Digital Nomad (Why I QUIT)	MVrRIKJmRR8	Oct 24, 2023	13min 49sec	1167
(*)Created by the a	Bali SUCKS for Digital Nomads! The Influencers Are Lying to You!	U5a4qnFRafE	Jun 4, 2024	18min 26sec	7401

^(*)Created by the author.

4. FINDINGS (BULGULAR)

Based on the analysis of the videos determined as the data set within the scope of our research, the following results were reached to determine the general perception about the digital nomad visa and which issues this perception focuses on in positive or negative aspects.

4.1. General Information About Videos (Videolar Hakkında Genel Bilgi)

A total of 60 videos selected within the scope of our research were listed as standard in the searched phrases. Because of the deduplication, 56 videos were taken as a data set, including 27 unique videos about positive phrases and 29 unique videos about negative phrases. The total length of these videos is 586 minutes and 31 seconds, and the audio texts of the relevant videos were filed and examined with artificial intelligence tools. The dataset videos have a total audience of 7,781,851 viewers as of the analysis day.

4.2. Text-Word Frequency Analysis Findings of Videos (Videoların Metin-Kelime Sıklığı Analizi Bulguları)

The word frequency analysis is based on the "positive" phrases, and the effectiveness score is calculated based on the video viewing rate of these words, which are listed from largest to smallest. The top 20 word groups with the highest scores are given in Table 4. Impact scores were calculated by multiplying the frequency of each word in the video by the ratio of the total number of views of the relevant video.

Table 4. Impact scores table of keywords detected in positive videos (Pozitif videolarda tespit edilen anahtar kelimelerin etki puanları tablosu)^(*)

Word(s)	Impact Scores
digital nomad	616,58
per month	350,91
would say	343,39
really nice	298,72
digital nomads	242,54
little bit	221,03
theres many	210,21
really awesome	194,69
place stay	172,36
work remotely	163,08
really good	154,77
best place	142,66
cost living	135,91
also really	127,69
nice place	124,52
nomad village	122,64
day week	122,31
nice meet	122,31
would like	122,31
affordable place	103,77

^(*)Created by the author.

The graphical visualization of the net impact scores given in Table 4 is presented in Figure 6, and the visualization of the identical scores as a word cloud is presented in Figure 7.

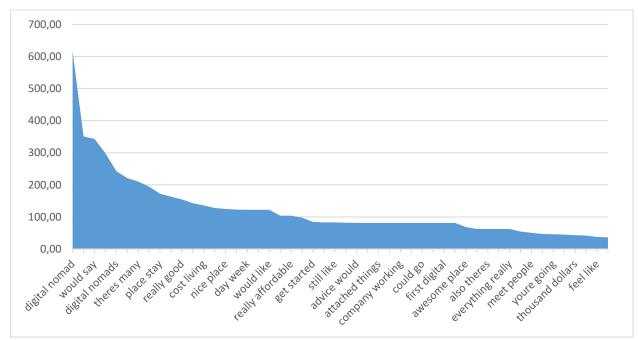


Figure 6. Impact score graph of keywords detected in positive videos (Olumlu videolarda tespit edilen anahtar kelimelerin etki skoru grafiği)



Figure 7. Word cloud image of keywords detected in positive videos (Olumlu videolarda tespit edilen anahtar kelimelerin bulut grafiği)

The word frequency analysis is based on "negative" phrases, and the calculated effectiveness score is based on the video viewing rate of these words, which are listed from largest to smallest. The first 20 word groups with the highest scores are given in Table 5.

Table 5. Table of impact scores for keywords detected in negative videos (Negatif videolarda tespit edilen anahtar kelimeler icin etki puanları tablosu)^(*)

current unuminum merimierer rijim euri puuminum tureresun)			
Word(s)	Impact Scores		
digital nomads	605,80		
digital nomad	535,62		
go back	254,64		
youre going	248,04		
im gonna	208,36		
enough money	203,71		
little bit	174,75		
im im	152,78		

like im	152,78
moment im	152,78
okay okay	152,78
paid ethereum	152,78
something stable	152,78
sort like	152,78
20 percent	103,77
180 days	101,85
34 million	101,85
actually get	101,85
actually want	101,85
basically im	101,85
(4)	· · · · · · · · · · · · · · · · · · ·

^(*)Created by the author.

The graphical visualization of the net impact scores given in Table 5 is presented in Figure 8, and the visualization of the identical scores as a word cloud is presented in Figure 9.

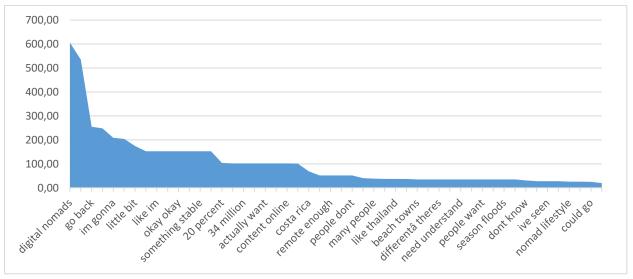


Figure 8. Impact score graph of keywords detected in negative videos (Negatif videolarda tespit edilen anahtar kelimelerin etki puanı grafiği)

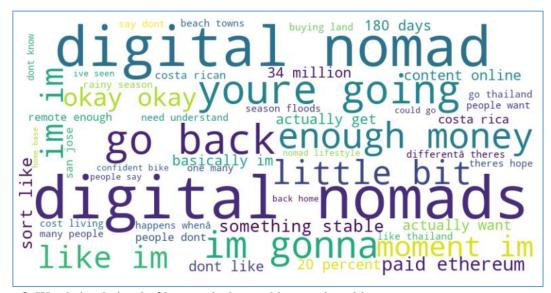


Figure 9. Word cloud visual of keywords detected in negative videos (Negatif videolarda tespit edilen anahtar kelimelerin kelime bulutu görseli)

4.3. Impact Score Findings of Video Themes (Video Temaları Etki Skoru Bulguları)

As a result of the examination, the number of viewers of the relevant video and the themes depicted by the relevant video were taken into account to calculate the impact rates of the words used in the texts obtained from the videos. The net impact score data calculated for the themes of the "positive" keyword phrases reached by collecting the impact scores of the videos in which each concept is discussed are given in Table 6.

Table 6. Table of net impact scores of keyword phrase themes detected in positive videos (Pozitif videolarda tespit edilen anahtar kelime öbeği temalarının net etki puanları tablosu)^(*)

Keywords	Net Impact
Keywords	Scores
Freedom-Flexibility-	6486
Independence	0460
Travel Advantage	6141
Adventure-Exploration-New	5214
Experiences	3214
Cost of Living Benefits (COLA)	2788
Climate and Cultural Attraction	2345
Cultural Interaction-Richness	1886
Economic Contribution to the	1407
Region	1407
Nosara	1398
Nutrition-Food-Beverage	939
Digital Infrastructure	869
Remote Work	869
Comfort-Quality of Life	746

Connection-Networking-	698
Committee	UZO
Community	
Beach-Coast Beauty	485
Southeast Asia	415
Cleaning-Hygiene	415
Job Opportunities	286
Personal Development-	239
Competence	
Thailand	238
Outreach	233
Bali	179
Blockchain	178
Club Swan	178
Tax Advantages	164
Co-working Spaces	163
Financial Flexibility	139
Motivation-Self-Confidence	129
Innovation	127
Philippines	121
Stable Life	77
Vietnam	77
YouTube	63
Security	59
Nightlife	42
European Countries	41
Visa Options	41
Sri Lanka	32
Peepa	25
Bansko	20
Bosnia and Herzegovina	18
Location Advantage	18

South America	17
Health-Sports	13
Italy	11
Transportation	11
Greece	4

New Experiences	3
Phuket	2
Costa Rica	1
Malta	1
Social Media	1

^(*)Created by the author.

The graphical visualization of the net impact scores in Table 6 is presented as a word cloud in Figure 10.



Figure 10. Word cloud visual based on the net impact scores of keyword phrase themes detected in positive videos (Pozitif videolarda tespit edilen anahtar kelime öbeği temalarının net etki puanlarına dayalı kelime bulutu görseli)

The calculated net impact score data of the "negative" keywords, which are reached by adding the impact scores of the videos in which each word is discussed, are given in Table 7.

Table 7. Table of net impact scores of keyword phrase themes detected in negative videos^(*) (Negatif videolarda tespit edilen anahtar kelime öbeği temalarının net etki puanları tablosu)

Keyword	Net Impact Scores
Financial Challenges	6611
Loneliness-Social Isolation	6255
Financial Variability	6028
Instability	5186
Relocation-Travel Difficulty	4975
Social Impossibility	4768
Insurance	4114
Relationship Difficulties	2576
Pollution-Hygiene Problems	2193
Cultural Differences	2051
High Cost of Living	1738
Mediocrity	1490
Nosara	1398

1086
868
815
806
708
571
563
562
545
501
415
415
415
364
352
293
261
224
219
197
169
121

Sargao	121
Remote Work	111
Co-working Spaces	104
Vietnam	77
Social Media Disinformation	75
Buenos Aires	57
San Francisco	54
Risks	47
İstanbul	40
Nutrition-Food Problems	32
Small Cities	31

Peepa	25
Bansko	20
Sweden	18
Mostar	18
Cordoba	17
South America	17
Greece	3
Regional Differences	2
Facebook	1
France	0
(*)C + 11 + 1	

^(*)Created by the author.

The graphical visualization of the net impact scores in Table 7 is presented as a word cloud in Figure 11.



Figure 11. Word cloud visual based on the net impact scores of keyword phrase themes detected in negative videos (Negatif videolarda tespit edilen anahtar kelime öbeği temalarının net etki puanlarına dayalı kelime bulutu görseli)

5. CONCLUSION AND RECOMMENDATIONS (SONUÇ ve ÖNERİLER)

5.1. Conclusion (Sonuç)

In the relevant literature review conducted within the scope of our research, it was observed that digital nomadism is preferred as a more popular lifestyle from year to year, especially by young and male individuals. As reflected in the section titled "Working on the Road: The Growth of Digital Nomads Continues" of the MBO Partners report, important determinations have been made for these adventurous, remote-working individuals who can work remotely and generally serve in the IT sector, which increased by 131% from 2019 to 2022 and reached approximately 17 million people and 40 million today [19].

As a result of the audio-text analysis of 56 YouTube videos, which were the subject of the examination, the following results were obtained when the net impact scores of the words highlighted as a result of the ratio of the number of views of these videos to the total number of views:

In the subjects depicted with positive expressions in the videos, the subject of "Freedom-Flexibility-Independence" ranked first with 6486 points, the subject of "Travel Advantage" ranked second with 6141 points, the subject of "Adventure-Discovery-New Experiences" ranked third with 5214 points, the subject of "Cost of Living Advantages (COLA)" ranked fourth with 2788 points, and the subject of "Climate and Cultural Attractiveness" ranked fifth with 2345 points. According to these results, it can be said that the viewing rates are preferred for these five prominent subjects. It is seen that the audience is interested in places where individuals can feel free and make discoveries, whose climate and

culture are attractive, and where the cost of living is more economical than other locations.

In addition, the subject of "Financial Difficulties" ranked first with 6611 points, "Loneliness-Social Isolation" ranked second with 6255 points, "Financial Variability" ranked third with 6028 points, "Instability" ranked fourth with 5186 points, and "Difficulty in Moving and Traveling" ranked fifth with 4975 points. According to these results, the audience was interested in the videos portrayed negatively, especially these five topics.

When we look at the topics described positively, freedom, travel advantages, adventure, discoveries, cost of living, information transfers, climate and cultural attractiveness, cultural richness, cultural interaction, economic contribution to the region, low quality and cost of nutrition, food and beverage quality, digital solid infrastructure, high comfort and quality of life, connection business networking, cleaning hygiene issues, the presence and quality of co-working spaces It has been observed that the videos in which such topics are highlighted have more viewers and accordingly, these topics are effective in transferring information due to their high impact scores.

When the negatively depicted issues are considered, these destinations, especially some known locations such as Nosara, Bali, Peepa, which are known to digital nomads, are crowded cities, adaptation problems due to cultural differences, conditions that prevent work such as heat and humidity, loneliness and being away from family, lack of fixed income required for a stable life, international money transfers being a problem in the accommodation area, It has been revealed that there are many viewers of the videos that contain many negative issues such as legal-legislative problems, expensive or complex health insurance and insurance transactions, socialization difficulties, pollutionhygiene problems, their lives turning into monotonous and ordinary routines after a while, collection-packaging of working equipment and difficulties in traveling to the following location, the airport, transfer from expensive accommodation. These results confirm digital nomads' use of social media to communicate, as stated by Müller [24].

Within the scope of the study, a challenging analysis was carried out by examining the text transcripts of the voices compiled from YouTube content, which has not been addressed in digital nomadism to date, with artificial intelligence-supported tools. These findings emphasize the critical role of the issues

featured in social media content, an important source for digital nomads to determine their next destination and decide.

This research supports the findings of previous studies such as Aroles et al. (2023) on digital nomads' uncertainty about job security and benefits, Matsushita and Michaud et al. (2022) on the protection of workers' rights, insurance, and social security, and Zhou et al. (2024) on the need to develop innovative destination strategies that attract and support digital nomads and provide solutions for their work, travel, social life, finance and basic needs. This research not only confirms previous studies but also extends the existing body of knowledge by making the expected characteristics of destinations meaningful for policymakers and by conducting a challenging analysis of hitherto unexamined audio recordings collected from YouTube content, one of the world's largest social media platforms, using AI-enabled tools. This research has practical implications for researchers, civil society organizations, and government policymakers working on digital nomadism and opens new avenues for future research.

New countries facilitate digital nomad visas daily; digital nomads contribute to the country's regional development and provide tourism income with increased cultural interaction and country awareness. For this reason, countries are now preparing action plans to address this issue in their country development plans. For example, within the scope of the Montenegro Government, the 2022-2025 Action Plan adopted in 2021 aims to promote Montenegro effectively, develop services in online environments for information, attract the attention of digital nomads, and increase the application and admission procedures. In coordination with the Ministry of Public Administration, Digital Society and Media, the Ministry of Interior, and the Ministry of Finance and Social Welfare, they cooperated on many issues, such as the Personal Income Tax Law and the extension of the Visa Application Period to 1 year [12]. Undoubtedly, it is essential to clearly define what will be done to implement these policies and understand the expectations of digital nomads.

5.2. Recommendations (Öneriler)

While promoting digital nomads, as given in the results section, it is livable and relatively economical, digital infrastructure is vital, there are no security problems, co-working areas are well designed, climate-beach-cultural beauties are highlighted, law-legislation-tax problems are solved, visa facilitation is provided, and the

minimum income level required for a visa specified by some countries is kept at a reasonable level. As a result of its successful implementation, our country is likely to become one of the most popular destinations.

In the search conducted with the Google Trends search tool [36], Montenegro was clearly at the top of the list in the last five years in the search made based on the keywords "digital nomad". This indicator proves that the practices improvements made by the Montenegro country administration are effective. In this context, Montenegro can be shown as an example of good practice in terms of improving social security conditions, facilitating visas, and effective promotion policies that should be taken into consideration by other country administrations interested in this issue.

Digital nomads, estimated at 40 million, represent a new kind of tourist-worker group that prefers to have fun freely while working and to have a high quality of life and comfort. Therefore, according to our research results, it is recommended that top policymakers prepare a coherent action plan with the primary objective of "Our goal is to promote Montenegro as a globally attractive place for digital nomads" in the case of the Government of Montenegro and implement it without delay. While promoting digital nomads, as given in the results section, working on action plans that focus on livable, relatively economical, digital solid infrastructure, no security problems, well-designed co-working co-working areas, highlighting climatebeach-cultural beauties, solving law-legislation-tax problems, providing visa facilitation and keeping the minimum income level required for a visa at a reasonable level specified by some countries. It can be beneficial.

According to the MBO Partners (2022) report, "... The factors driving the growth of digital nomadism are still firmly in place. People want to travel, awareness and interest in digital nomadism are growing, and the shift to remote work will continue to be a strong enabler. We expect the number to increase even more in the next few years." the situation was revealed, and it was seen that the prediction was realized as of 2024 and increased 2 times in 2 years by reaching a mass of 40 million. The contribution of this qualified workforce, which corresponds to half or more than all of the population of many countries and cannot be underestimated, to regional development, tourism, and digital development should not be ignored [19].

5.3. Limitations and Future Study Proposals

(Sınırlılıklar ve Gelecek Çalışmalar)

The most significant limitation of this research is that 60 videos selected on the YouTube platform and other video-based social media platforms are not included in the review. Another limitation is that the viewer's comments on the video about the concepts mentioned in the video audio texts are not analyzed. Similar research also recommends using other video-based social media platforms like Instagram and TikTok.

DECLARATION OF ETHICAL STANDARDS (ETİK STANDARTLARIN BEYANI)

The author of this article declares that the materials and methods they use in their work do not require ethical committee approval and/or legal-specific permission.

Bu makalenin yazarı çalışmalarında kullandıkları materyal ve yöntemlerin etik kurul izni ve/veya yasal-özel bir izin gerektirmediğini beyan ederler.

AUTHORS' CONTRIBUTIONS (YAZARLARIN KATKILARI)

Zafer AYAZ: He compiled the data, performed the analysis, and wrote the manuscript.

Verileri derlemiş, analizleri yapmış, ve makalenin yazım işlemini gerçekleştirmiştir.

CONFLICT OF INTEREST (ÇIKAR ÇATIŞMASI)

There is no conflict of interest in this study.

Bu çalışmada herhangi bir çıkar çatışması yoktur.

REFERENCES (KAYNAKLAR)

- Akgün, AC. A research on digital nomads impressions of Türkiye in the context of cultural diplomacy. Journal of Erciyes Communication. 2024; 11(2):673-682. https://doi.org/10.17680/erciyesiletisim.14379 18
- [2] Albayrak, M, Topal, K, Altıntaş, V. (2017). Data analysis on social media: Twitter. Süleyman Demirel University Faculty of Economics and Administrative Sciences Journal. 2017; 22(Kayfor 15 special issue):1991-1998.
- [3] Alshater, M. Exploring the role of artificial intelligence in enhancing academic performance: a case study of ChatGPT. SSRN Electronic Journal. 2022; https://doi.org/10.2139/ssrn.4312358

- [4] Aroles, J, Bonneau, C, Bhankaraully, S. Conceptualising 'meta-work'in the context of continuous, global mobility: The case of digital nomadism. Work, Employment and Society. 2023; 37(5):1261-1278. https://doi.org/10.1177/09500170211069797
- [5] Bird, S, Klein, E, Loper, E. Natural language processing with Python. O'Reilly Media. 2009
- [6] Bonneau, C, Aroles, J, Estagnasié, C. (2023). Romanticisation and monetisation of the digital nomad lifestyle: the role played by online narratives in shaping professional identity work. Organization. 2023; 30(1):65-88. https://doi.org/10.1177/13505084221131638
- [7] Calzada, I. Blockchain-driven digital nomadism in the basque e-diaspora. Globalizations. 2023;1-26.
 https://doi.org/10.1080/14747731.2023.227121
- [8] Castles, S, Miller, MJ, Ammendola, G. (2005). The age of migration: International population movements in the modern world: New York. The Guilford Press. American Foreign Policy Interests. 2005; 27(6):537–542. https://doi.org/10.1080/10803920500434037
- [9] Cingiz, MÖ, Çeliktaş, E. Keyword-based sentiment analysis of Covid-19 related tweets. Journal of Innovative Science and Engineering. 2021; 5(2):173-182. https://doi.org/10.38088/jise.935963
- [10] Demirbilek, M, Özulukale Demirbilek, S. Sentiment analysis based on Google comments with machine learning methods and Amazon Comprehend: The case of a University in Central Anatolia. Journal of University Research. 2023; 6(4):452-461. https://doi.org/10.32329/uad.1383794
- [11] Düzgün, E, Akın, A. A new tourist typology proposal: Digital nomad. Ahi Evran University Social Sciences Institute Journal. 2022; 8(2):596-612.
 - https://doi.org/10.31592/aeusbed.1095735
- [12] Government of Montenegro. (2021).

 Programme for attracting digital nomads in montenegro adopted.

 https://www.gov.me/en/article/programme-for-attracting-digital-nomads-in-montenegro-adopted (accessed 28 September 2024)
- [13] Göçgün, ÖF, Onan, A. Sentiment analysis with deep learning/machine learning techniques on Amazon products review. European Journal of Science and Technology. 2021; (24):445-448. https://doi.org/10.31590/ejosat.902674
- [14] İli, B, Büyükbaykal, GN. A bibliometric analysis of digital nomad researches. Nevşehir Hacı Bektaş Veli University Journal of ISS.

- 2022; 12(Digitalism):306-319. https://doi.org/10.30783/nevsosbilen.1121236
- [15] İli, B, Büyükbaykal, GN. Digital nomadism in the new media age: A study on 21st century travelers. Akdeniz University Faculty of Communication Journal. 2023; (41):70-93. https://doi.org/10.31123/akil.1300885
- [16] Kabak, T, Kırbaş, İ. ChatGPT with risks and opportunities. Mehmet Akif Ersoy University Journal of Institute of Science. 2023; 14(2):365-376.
 - https://doi.org/10.29048/makufebed.1271477
- [17] Keen, I. Aboriginal Economy and Society: Australia at the threshold of Colonisation (1st ed.). Oxford University Press. 2004
- [18] Kocaman, S. Digital nomad research in tourism: A systematic literature review. Tourism Academic Journal. 2022; 9(2): 447-462.
- [19] MBO Partners. Happier, healthier & wealthier state of independence in America. 2022;https://www.congress.gov/118/meeting/house/115679/documents/HHRG-118-ED10-20230419-SD019.pdf (accessed 28 September 2024)
- [20] Makimoto, T, Manners, D. Digital Nomad. Wiley. 1997; ISBN: 978-0-471-97499-4,
- [21] Massey, DS, Arango, J, Hugo, G, Kouaouci, A, Pellegrino, A. Worlds in motion: Understanding international migration at the end of the Millennium. Clarendon Press. 1998
- [22] Matsushita, K. How the Japanese workcation embraces digital nomadic work style employees. World Leisure Journal. 2022; 65(2):218–235. https://doi.org/10.1080/16078055.2022.215659
- [23] Michaud, P, Beauregard, E, Proulx, J. Criminal nomadism: a neglected dimension of spatial mobility in sex offending, Journal of Criminal Justice. 2022; Volume 81:101928, ISSN 0047-2352, https://doi.org/10.1016/j.jcrimjus.2022.101928
- [24] Müller, A. The digital nomad: Buzzword or research category? Transnational Social Review. 2016; 6(3):344–348. https://doi.org/10.1080/21931674.2016.122993
- [25] Nayir, F, Sarı, T, Sarıdaş, G. Exploring the nature of mixed methods research questions. Pamukkale University Social Sciences Institute Journal. 2024; (60):361-372. https://doi.org/10.30794/pausbed.1384311
- [26] Nash, C, Jarrahi, HM, Sutherland, W, Phillips, G. Digital nomads beyond the buzzword: Defining digital nomadic work and use of digital technologies. In G. Chowdury, J.

- McLeod, V. Gillet, & P. Willett (Eds.). International Conference on Information. Springer. 2018; 207-217.
- [27] Özyürek, H, Babacoglu, S, Polat, M, Turen, U. Mapping the Field of Digital Nomadism: A Bibliometric Analysis Using VOSviewer and R. The Eurasia Proceedings of Science Technology Engineering and Mathematics. 2024; 27:263-280. https://doi.org/10.55549/epstem.1518797
- [28] Reichenberger, I. Digital nomads a quest for holistic freedom in work and leisure. Annals of Leisure Research. 2017; 21(3):364–380. https://doi.org/10.1080/11745398.2017.135809
- [29] Statista. Share of digital nomads worldwide as of March 2024 by nationality. 2024; https://www.statista.com/statistics/1298849/digital-nomads-by-nationality-worldwide/, (accessed 30 August 2024)
- [30] Taşdelen, H. A qualitative study on Türkiye's image perception from the perspective of digital nomads. Selçuk Communication. 2023; 16(2):293-322. https://doi.org/10.18094/josc.1286057
- [31] Thompson, BY. The digital nomad lifestyle: (remote) work/leisure balance, privilege, and constructed community. Int J Sociol Leis 2. 2019;27–42. https://doi.org/10.1007/s41978-018-00030-y
- [32] Yılmaz, O, Güzel Gürbüz, P. A research on digital nomadism and recreation. National Journal of Sports Sciences. 2023; 7(2):82-93. https://doi.org/10.30769/usbd.1377057
- [33] Zhou, L, Buhalis, D, Fan, DX, Ladkin, A, Lian, X. Attracting digital nomads: Smart destination strategies, innovation and competitiveness. Journal of Destination Marketing & Management. 2024; Volume 31(4):100850, ISSN:2212-571X, https://doi.org/10.1016/j.jdmm.2023.100850.
- [34] Ayan, B, Kuyumcu, B, Ceylan, B. Detection of islamophobic tweets on Twitter using sentiment analysis. Gazi University Journal of Science Part C: Design and Technology. 2019; 7(2):495-502. https://doi.org/10.29109/gujsc.561806
- [35] Li, M, Sun, J, Tan, X. Evaluating the effectiveness of large language models in abstract screening: a comparative analysis. Systematic Reviews. 2024; 219(13). https://doi.org/10.1186/s13643-024-02609-x
- [36] Google Trends Search Tool. Google Trends Search Result Page. 2024; https://trends.google.com/trends/explore?date=today%205-y&q=digital%20nomad&hl=en, (accessed 07 December 2024)