

ORIGINAL RESEARCH ARTICLE

Google Trends platform: An analysis of the search for accommodation in Meruoca/Ceará-Brazil and its importance for digital marketing

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ABSTRACT

Digital marketing has proven to be an essential tool for several business sectors, and tourism is one of the beneficiaries of this strategy. This article aims to analyze data from searches for words or terms related to accommodation in Meruoca. The research has a descriptive and quantitative character, seeking data, analysis and discussion about the searches for terms related to the main means of accommodation in the city of Meruoca, carried out by users in Brazil during the months of January to December 2019. The results indicate the variations in the interest of users for both means of accommodation throughout the year, providing a more comprehensive view of periods of greater demand and preference. Thus, it is concluded that the use of Google Trends provides important insights for managers in the tourism sector, helping them to develop more efficient and targeted marketing strategies.

Keywords: digital marketing; Google Trends; tourism; hosting facilities; Brazil

1. Introduction

Digital marketing has found in digital media, such as social networks, blogs and websites, an increasingly relevant field of action. These platforms have become strategic tools to boost tourism destination offers, allowing consumers to quickly find personalized accommodation options on the internet. Thus, digital marketing plays an important role in promoting tourism, making it necessary to further explore social networks and search engines in the hotel industry^[1].

In addition, the emergence of social media provided opportunities for exchanging information between people from different cultures and the search for knowledge about products and services, without refigure limits and at any time^[2]. In this context, today's tourist widely uses the internet and technology to access specific information and make informed decisions.

The ways of searching for accommodation and tourist destinations have undergone significant changes, with consumers becoming more demanding and well-informed^[2]. The internet is widely used at all stages of the trip, including the initial search for accommodation^[3]. Then comes the importance of search engines, with

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Google being one of the most used and globally recognized tools^[4]. Google has valuable data about searches performed by users, revealing interests, patterns, intentions and preferences. This information is available almost in real time through the Google Trends tool, free of charge.

This article aims to analyze data from searches for words or terms related to accommodation in Meruoca, in addition to exploring the importance of this information for digital marketing. The first part addresses the theoretical framework, highlighting the importance of digital marketing and the Google Trends platform for the development of management strategies in the tourism sector. Next, the characteristics and specificities of the city of Meruoca are presented. The third part describes the methodological procedures adopted in this study. Finally, the results, final considerations and bibliographical references are presented.

2. Theoretical frameworks

Information is something that has been increasingly disseminated through the World Wide Web. There is no more distance that separates an individual from the information, as long as he is equipped with electronics or any devices that allow him to access the internet. And within this universe of virtual information, digital marketing stands out: an area of knowledge that has been providing organizations with the development of strategies to make themselves present with their identities within the internet world^[5].

It is a diverse, plural, intense and fleeting environment where connected consumers, transformed companies and strategies that go against digital marketing are born^[6]. For this reason, in the face of diverse and challenging scenarios, digital marketing reinvents itself to adapt to new market trends and technologies, in order to take advantage of all its potential^[7].

Digital marketing uses techniques to develop the image and other strategies of its clients, provoking the involvement and engagement of users in social networks, websites and other means of dissemination provided by the internet. It is a form of action capable of achieving marketing objectives^[8].

As can be seen, the advancement of the internet, digital marketing and social media has made organizations change the way they communicate with their consumers^[9,10]. Thus, when users search for information on the internet, information technology has started to register these interactions or searches, becoming a source of information directly linked to the consumer's interest.

In this way, virtual information becomes possibilities for the development of organizations' marketing and a great advantage for the tourism sector, while this activity usually has its services available on the internet^[11-13].

Thus, the consumer is the target of suppliers and intermediaries, who in promoting their services, yearn to satisfy the needs of this customer. It is quite common for a traveler or tourist to start his travel intentions by going to a search engine. It will search for travel agencies, tourist destinations, air and land tickets, attractions, accommodation, tours, car rentals, traveler experiences, etc.

From these searches, the company Google then created a platform called Google Trends, which has become an effective and free tool for digital marketing. This makes it possible to analyze the periods and the veracity of the information^[6] providing forecasting power for demand and consumer preferences^[14].

The Google Trends tool makes it possible to analyze data such as the number of times a particular term or word was searched for, as well as providing comparative data for two terms. The data can be presented through figures created by the platform itself. In addition, the tool also makes it possible to identify the location of the user who carried out the search, and there may also be a delimitation of the refigure area^[15].

Meruoca: Characteristics, events and means of accommodation

Serra da Meruoca is inserted in the Metropolitan Region of Sobral (RMS). RMS was created by State Law No. 168 of 2016 and is located in the northwest of the State of Ceará, Brazil. It is made up of 18 municipalities, among which is the municipality of Meruoca, which borders the municipalities of Alcântaras, Massapê and Sobral, as shown in the map prepared by the Observatório das Migrações do Estado do Ceará.

Meruoca is a municipality with an estimated population of 15,309 inhabitants, according to the Brazilian Institute of Geography and Statistics^[16]. Its economy is based mainly on family farming, with fruit and vegetable cultivation and subsistence agriculture, although the predominant income comes from jobs in the municipal and state public sector.

In tourism, Meruoca stands out for its natural attractions, typical of a mountainous region. The city offers vast forests, preservation areas, waterfalls, springs and lookouts, which make it suitable for adventure tourism and ecotourism. Some of the attractions include bathing at Sítio Bom Jesus, Sítio São Daniel, Bica do Itacaranha, Cachoeira das Lages, Cachoeira do Quebra, Cachoeira Véu de Noiva and Buraco da Velha. The Túnel dos Bambus, on the road that connects Sobral to Meruoca, is a special attraction. The Mirante do Delta is sought after by practitioners of extreme sports, such as hang-gliding, and by those who wish to enjoy the exuberant view of nature.

On weekends, holidays and vacations, the movement of cars and people in Meruoca is intense, as observed in the sites, roads, streets, squares, bars, restaurants, hotels and inns. This demonstrates the great interest of visitors, whether they are residents of Sobral or children of the region who visit their relatives in Meruoca and enjoy the tourist attractions of the Serra.

One of the city's standout events is the Winter Festival, which takes place in June and lasts for three nights. This event receives support from the government, which offers awards, structure and organization. The festival attracts many visitors from various parts of Brazil, interested in the tourist attractions of the city and in the renowned Brazilian popular music artists who perform at the event. The festival boosts local commerce, services, accommodation and food, contributing to the region's economy.

When a tourist destination attracts visitors, an important issue to consider is the available accommodation capacity during holidays and events. According to the study of Kozak and Rimmington^[17], there are two key characteristics for the performance and competitiveness of a tourist destination. The first set includes the location, climate, ecology, culture and traditional architecture. The second set refers to specific services for tourism and hospitality, such as hotels, restaurants, transport and entertainment. In this study, the focus is on accommodation facilities, as they play an important role in choosing the place to be visited. The quality of accommodation is essential for tourists to have a satisfactory experience and want to return.

Meruoca offers some accommodation options, although without much luxury or significant investment. Hotel Ytacaranha is the largest and best-known establishment, with a wide structure that includes a water park and event center. Located at CE-440, Km 17, Rural Area of Serra da Meruoca, the hotel has been in operation for over 20 years. Its privileged location and the mountain climate are attractive points. However, repairs, maintenance and modernization are necessary, as the accommodation is already worn out and in need of improvement.

Another relevant accommodation option is the Chalés Encontro das Brisas, which offer chalets with a rustic and simple atmosphere, resembling small residences. In addition, they have a restaurant and swimming pool. Located 234 km from Fortaleza, Chalé Encontro das Brisas has 16 chalets and has a renowned restaurant in the region, with a regional menu that makes it unique and attractive to tourists.

On a simpler scale of comfort, the city offers small inns, such as Pousada Pico da Serra and Encontro dos Chalés. Although these options have a lower level of comfort, they provide accommodation for visitors looking for accommodation in Meruoca.

3. Methodological procedures

The research methodology was descriptive, despite containing quantitative data, these were used descriptively. According to the study of Gil^[18], the type of descriptive research “aims at describing the characteristics of a given population or phenomenon”. Therefore, data were analyzed regarding the interests of users with Internet Protocol (IP) addresses located in Brazil, who sought information on the Google platform, during the year 2019, for the terms “Meruoca”, “Ytacaranha Park Hotel de Serra” and “Chalés Encontro das Brisas”. The search terms were chosen due to the researched destination, as well as the choice of the two largest existing accommodations in the municipality.

Table 1. Google Trends rating.

Column 1	Column 2	Column 3
Category: Tourist destinations	-	-
Week	Ytacaranha park beach hotel: (Brazil)	Chalet encontro das brisas: (Brazil)
2019-01-06	21	0
2019-01-13	42	0
2019-01-20	0	0
2019-01-27	0	0
2019-02-03	0	0
2019-02-10	0	0
2019-02-17	28	0
2019-02-24	22	20
2019-03-03	0	0
2019-03-10	0	0
2019-03-17	31	0
2019-03-24	56	0
2019-03-31	0	0
2019-04-07	34	0
2019-04-14	21	0
2019-04-21	0	0
2019-04-28	0	0
2019-05-05	21	0
2019-05-12	0	0
2019-05-19	29	0
2019-05-26	0	0
2019-06-02	0	0
2019-06-09	0	0
2019-06-16	62	86
2019-06-23	76	0
2019-06-30	80	0

Source: survey data.

Data collection was performed on the free Google Trends platform. In order to obtain a greater assertiveness of the information in relation to the research object, the term “Travel” was also used as a research category, and as a subcategory, the terms “Tourist destinations” and “Hotels and Accommodations”. Thus, the collected data were organized, treated and analyzed with the support of Microsoft Excel software, for the preparation of spreadsheets and figures (Table 1).

Also, part of the research methodology was the analysis of information about the events and traditions that appear in the calendar of the Municipality of Meruoca. The purpose of data collection was to develop the correlation of events and events that occurred in the city, with the data obtained in the Google Trends search. Data were compiled into an Excel spreadsheet.

The correlation of the events in relation to the searches was due to the dates of the search for accommodation on the occasions of events, vacations and holidays in the city^[19]. It was assumed that the more searches performed on a given date, the greater the interest in accommodation in those particular terms.

4. Results

The research was carried out based on data collected on the Google Trends platform. The information collected regarding the interests of users, located in Brazil, and during the year 2019, in relation to the means of accommodation in the municipality of Meruoca, more specifically the Ytacaranha Park Hotel de Serra and the Chalés Encontro das Brisas.

To start the collection, the search terms were entered on the platform, with the choice of categories and subcategories as well, aiming at a more specific result. Likewise, based on the research carried out using the term “Meruoca” and the location parameters of users in Brazil in 2019, in the travel category and subcategory “Hotels and Accommodations”, it was possible to identify a more expressive interest during the months of May and December (Figure 1).

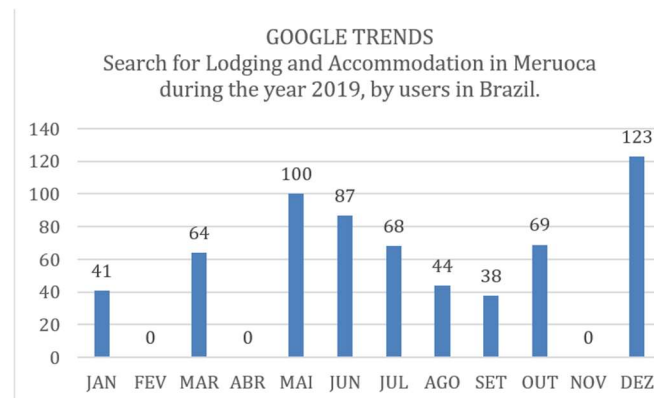


Figure 1. Figure of the search for lodgings and accommodations in Meruoca during the year 2019, by users in Brazil. Source: Google Trends data.

The results obtained, which show a correlation between online searches related to the city of Meruoca and the festive events that take place in the municipality, are consistent with previous studies on tourism and tourist behavior. This information is relevant to understanding the demand for lodging and accommodation at specific times of the year when festive events take place.

The proximity of the Meruoca Winter Festival, which takes place in June, and the religious festivities in honor of Our Lady, celebrated at the end of May, are important events that attract the attention of tourists. The search for information about the city during this period indicates an interest in participating in these festivities.

Study such as Medaglia's^[20] on real tourist demand in Diamantina/MG can provide additional insights into the importance of festive events in attracting tourists.

Likewise, searches for the term “Meruoca” during the month of December, coinciding with the religious festivities of the city's patron saint and the end of the year festivities, such as Christmas and New Year, are understandable^[21]. December is a month when many people have vacations and look for destinations to enjoy the festivities and rest period. The study by Sousa and Soares^[22] on the use of TripAdvisor in the marketing of tourist destinations can offer relevant insights into the importance of online platforms in the dissemination and promotion of tourist destinations.

This correlation between online searches and real events taking place in Meruoca reinforces the importance of understanding tourist behavior and the motivations behind their travel decisions. Robert's study on tourism marketing can provide relevant approaches and strategies to effectively promote tourism in Meruoca during these specific festive periods^[23].

The next data collection was carried out by making a comparison between the two means of accommodation. The terms “Ytacaranha Park Hotel de Serra” and “Chalés Encontro das Brisas” were inserted in Google Trends, in addition to the location parameters of users in “Brazil”, in the period of “2019”, in the category “Travel” and subcategory “Destinations Tourism”, according to **Figure 2**.

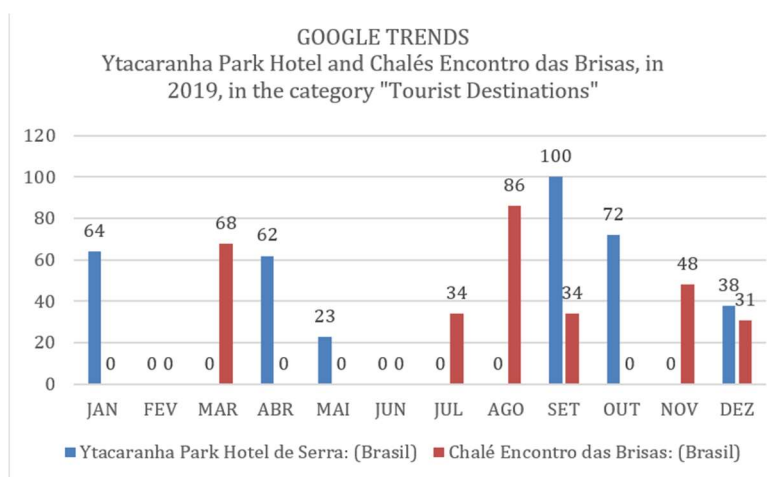


Figure 2. Comparative figure of the search for the terms Ytacaranha Park Hotel and Chalés Encontro das Brisas, in the year 2019, in the category “Tourist Destinations”.

Source: Google Trends data.

The results obtained indicate that the Ytacaranha Park Hotel had a higher average interest rate than Chalés Encontro das Brisas during the year 2019, with 359 searches compared to 301 searches, representing a difference of 58 more searches for the first. This suggests that users showed a greater interest in the Ytacaranha Park Hotel as an accommodation option in relation to Chalés Encontro das Brisas.

In addition, an increase in interest in both accommodations was observed in August and September, which can be attributed to the presence of the September 7th holiday in this period. These months can be considered favorable times for travel and tourism, which would explain the increased interest in searches. The months of January, March and November also showed medium interest, which may be related to vacations and other holidays throughout the year.

It is understood that the visualization of the aggregated tourism marketing system can provide insights into effective marketing strategies for the hotels in question^[24]. Likewise, the use of marketing strategies in the

tourism market can be relevant to understanding consumer behavior and competition in this sector^[25] and provide an important conceptual basis for a broader understanding of the context of tourism^[26].

After the initial analysis of the data, the comparative collection between the two means of accommodation continued. Using the terms “Ytacaranha Park Hotel de Serra” and “Chalés Encontro das Brisas” in Google Trends, together with the location parameters of users in Brazil, in the year 2019, in the category “Travel” and subcategory “Hotels and Accommodations”, the results shown in **Figure 3** were obtained.

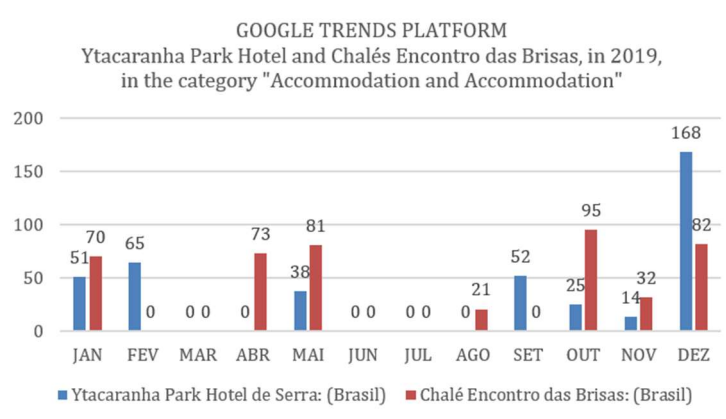


Figure 3. Comparative figure of the search for the terms Ytacaranha Park Hotel and Chalés Encontro das Brisas, in 2019, in the category “Accommodation and Accommodation”.

Source: Google Trends data.

The results show that the average interest in the subcategory “Hotels and Accommodations” throughout 2019 was higher for Chalés Encontro das Brisas (454 searches) compared to Ytacaranha Park Hotel (413 searches), with a difference of 41 searches in favor of Chalés Encontro das Brisas. This indicates that users are more interested in the first hosting option. However, when the “Tourist destinations” subcategory was added, there was a shift in interests between the two accommodations.

In addition, there was a significantly greater interest in Ytacaranha Park Hotel de Serra in December (168 searches), which can be attributed to the traditional Ytacaranha New Year’s Eve celebration in that same month, together with the start of school holidays. An increase in interest in accommodation was also noted in the months when there were national holidays, such as January, February, April, May, October, November and December. Only in April and August were exclusive interests registered for Chalés Encontro das Brisas, while in February and September there was exclusive interest for Ytacaranha Park Hotel de Serra.

This data reveals variations in user interest in the two establishments throughout the year, providing a comprehensive view of the periods of greatest demand and preference. This is useful for understanding market needs and making strategic decisions related to the services offered by each host. This highlights the influence of new digital technologies on tourist behavior change^[9] and the technological trends applicable to the sector^[27].

After analyzing the results obtained, the relevance of the data as a digital marketing tool was verified. This information includes likely dates of greatest demand for accommodation, interest in accommodation during local events, and search volume for different types of accommodation. These results can be leveraged in marketing strategies to boost sales.

5. Final considerations

In this research, data extracted from the Google Trends platform were analyzed, in relation to the interest of users in two means of accommodation in the municipality of Meruoca. The results showed information

about users' interests by holiday date and that coincided with cultural and religious events in the city of Meruoca. This information is relevant to understanding the demand for lodging and accommodation and can be used to guide marketing, sales and decision-making strategies in the tourism and hospitality industry.

Therefore, when concluding the collection and analysis of the data and results, it appears that these may serve as an aid for decision-making by managers and for the elaboration of strategies for digital marketing in organizations, considering that they will obtain behavioral data on the interests of users in relation to the means of accommodation in the municipality of Meruoca.

In theoretical terms, the study demonstrates how the use of online data analysis tools, such as Google Trends, can be applied to obtain information about users' interest in certain subjects or locations. This broadens the research field and provides a new approach to understanding consumer preferences and demands.

Furthermore, the study highlights the importance of analyzing real-time data to identify seasonal patterns and correlations between real events and online interest. This can help to improve the understanding of user behaviors and assist in the strategic planning of companies and tourist destinations.

From a practical point of view, the study provides information for accommodation facilities in Meruoca. By identifying the periods of greatest interest and demand for accommodation, establishments can adjust their marketing strategies and service offerings. They can take advantage of local events and holidays to attract more customers and adapt their offers according to user preferences.

In addition, the comparative analysis between the two specific means of accommodation, the Ytacaranha Park Hotel de Serra and the Chalés Encontro das Brisas, provides relevant information for decision-making in relation to the services offered by each establishment. Understanding user preferences and competition can help differentiate and improve the quality of services provided.

Author contributions

Conceptualization, JAdSSB, SDSdO and ARCP; methodology, JAdSSB, SDSdO and ARCP; validation, JAdSSB, SDSdO, ARCP and PC; formal analysis, JAdSSB, SDSdO, ARCP and PC; investigation, JAdSSB and SDSdO; resources, JAdSSB, SDSdO and ARCP; data curation, JAdSSB, SDSdO and ARCP; writing—original draft preparation, JAdSSB, SDSdO and ARCP; writing—review and editing, JAdSSB, SDSdO, ARCP and PC; visualization, ARCP; supervision, ARCP. All authors have read and agreed to the published version of the manuscript.

Conflict of interest

The authors declare no conflict of interest.

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