



Volume 7 Issue 2, December 2024, pages: 15-28

# DETERMINING THE THEME FOR ARCHITECTURAL DESIGN OF TOURIST ACCOMMODATION BASED ON BIG DATA IN THE CANGGU VILLAGE AREA, BADUNG, BALI

I Wayan Widanan<sup>1\*</sup>, Made Suryanatha Prabawa<sup>2</sup>, Made Mas Surya Wiguna<sup>3</sup>  
Architecture Study Program, Universitas Warmadewa<sup>1\*23</sup>  
widanan@warmadewa.ac.id

Received: 10/10/2024

Revised: 17/12/2024

Accepted: 23/12/2024

## Abstract

Canggu Village is the area in the Badung Regency, Bali, which has recently grown to be one of the main attractions for tourists. Accordingly, this region has undergone rapid development and an increase in tourism-oriented facilities. Unfortunately, not all of these facilities have been built with architectural themes related either to the demands of the market or to the Canggu or Bali Villages' local characteristics. On the other hand, information technologies have reached a point where much data, popularly known as Big Data, is constantly available and can be analyzed for any purpose. Such inconsistency in the architectural themes expressed with the availability of Big Data has presented the possibility of determining what architectural theme fits the tourism market in Canggu Village. The objective of this research is to establish the more exact architectural design theme for tourist accommodation in Canggu Village based on Big Data analysis, while maintaining respect for local architecture value, form, and norm. The quantitative approach in research is adopted during this research. In this case, it means data was collected through Big Data exploration. Further, the analysis was done using the comparative-correlational method. Data revealed that the highest ratio falls into Modern minimalist architecture, followed by modern Balinese architecture. It means the application of such themes in the Canggu Village area is concerned with Modern Minimalist Architecture and Modern Balinese Architecture. In the future, consideration must be given towards including both themes to maintain the local identity of the architecture in Canggu Village.

**Keywords:** Tourism, Theme, Big Data, Canggu

## 1. INTRODUCTION

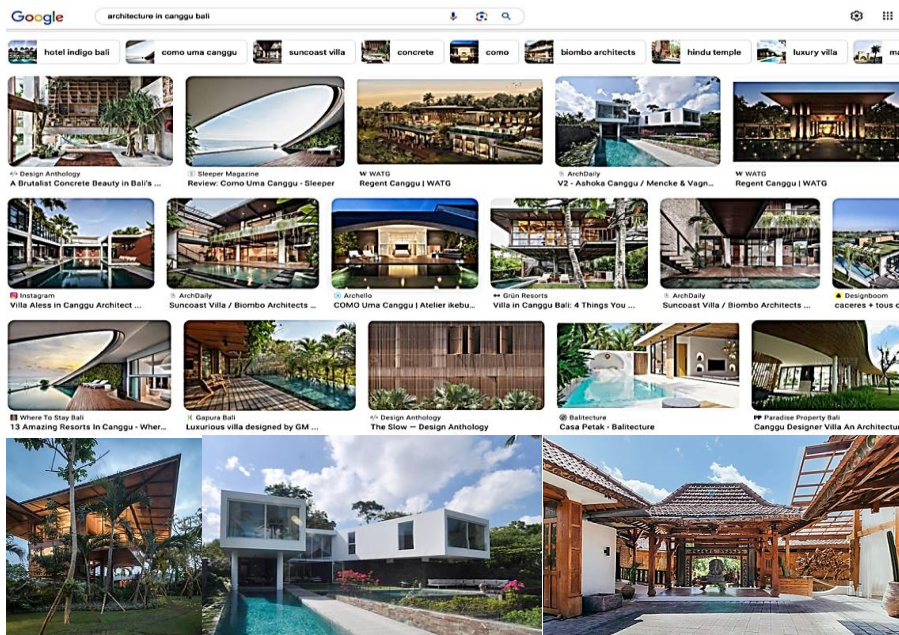
The tourism sector is the sector that contributes the largest income to the province of Bali. In reality, the main income of the Bali Province is in the tourism sector. It is known from statistical data that foreign tourist visits to Bali in the last 4 years have continued to increase (Table 1.1). This sector is capable of creating millions of livelihoods for local communities, either through direct employment or through the sale of goods and services.

**Table 1.** Data on Foreign Tourist Visits for the Last 4 Years

Year	Amount of Foreign Tourists Visit
2016	4,927,937
2017	5,697,739
2018	6,070,473
2019	6,291,141

Source: Dinas Pariwisata Provinsi Bali (2020)

Canggu Village began to be known as a tourism destination in 1980 where tourists at that time looked for waves on the beaches in the Canggu Village area for surfing activities, continuing in 1990-until now Canggu Village has become a popular tourist destination. (Wahyundaria & Sunarta, 2020). Canggu Village is also very well known because it has many tourist attractions, so many tourists choose to spend their holidays in Canggu Village (Qothtrunnada, 2023). The development of Canggu village as a tourist destination started with surfing and frenetic tourism, until now (2024) Canggu village is very popular with tourists who are classified as digital nomads. Digital Nomads are working class people who work remotely and rely heavily on an internet connection to stay in touch with all their work matters (Malini & Nurhadi, 2024). The number of tourists who are classified as Digital Nomads (DN) continues to increase during the COVID-19 pandemic (2020) until now (2024), so that areas in the Canggu Village area suddenly turn into accommodation for these DN tourists, there are areas that have changed functions as a Villa, Condotel, Hotel, Resort, Homestay, Bungalow, Glamping, Café, Resto, Restaurant, Coffee Shop, Gym, Coworking Space, Disco, etc. In fact, the development of land conversion in Canggu Village from an agricultural area to an area hosting tourist activities has gradually occurred, but the peak is starting from 2019-now (2024). The rapid growth in the number of DNs has also made the Canggu area named the third favorite destination for digital nomads from all over the world despite the COVID-19 pandemic (Bernada, 2023).

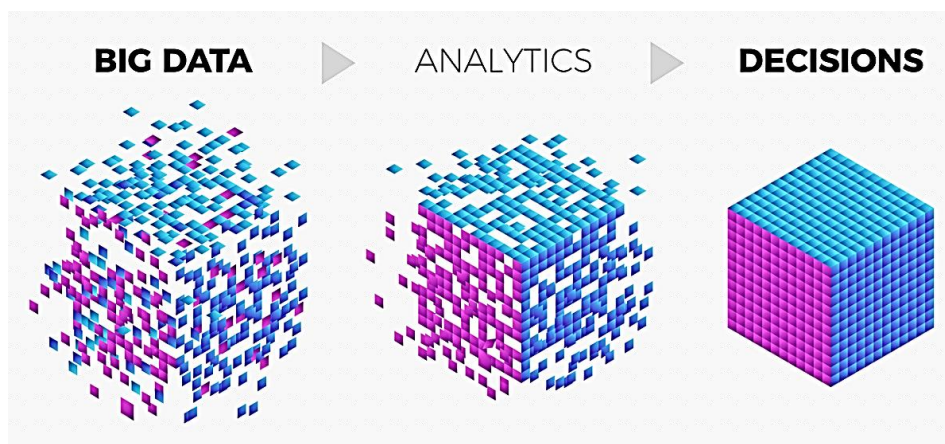


**Figure 1.** Architectural Theme of Tourist Accommodation Buildings in the Canggu Area  
 Source: Google Image Search (Desember, 2023)

A brief review through browsing on Google pages, found that the architectural themes of tourism facilities that already exist/are implemented in the Canggu village area are very diverse (Minimalist, Eclectic, Neo Vernacular, Japandi, etc.). This diversity of themes can certainly be confusing for tourism actors, especially investors who want to build tourism facility businesses in the Canggu area. This diversity of themes also makes the Canggu area from a tourism perspective lacking architectural characteristics, and this diversity will also threaten the existence of Balinese vernacular architecture which should be the main theme of every existing tourism building, because there are not enough architects who have practiced in the Canggu area. pay attention to local values. Based on these things, tourism actors or tourism business people who want to build around the Canggu area really need a study related to the accuracy of determining the Architectural Theme which is able to characterize the Canggu Village area, in accordance with market needs, and at the same time applying local values so that the value is preserved. Balinese architecture in Canggu is still maintained.

Currently, information systems have become an important element in various fields such as business and government. As technology develops, information systems become increasingly complex and produce increasingly large amounts of data. Many applications today are related to the use of big data. Big data analysis (Big Data) is the process of extracting, exploring and interpreting large amounts of data, both structured and unstructured, to identify patterns, trends and valuable insights. In the context of information systems, big data analysis involves processing data on a very large and complex scale using advanced technologies and analytical tools (Bakrie University, n.d.).

In the current development of information system technology, studies related to architectural themes, especially determining the most appropriate architectural theme decisions, are very possible based on Big Data studies or Big Data Analysis. This is possible here because the majority of every activity today is carried out in internet-based applications with the term IoT (internet of things), so that all activities in the application can be recorded and presented transparently into a large data collection that can be analyzed for certain purposes. One of the benefits of Big Data Analysis is being able to identify problems, make decisions, and develop efficient development plans. In the future, through this research, it will be possible to continue architectural design research based on Big Data so that architects can determine the architectural theme that best suits the required conditions so that they can minimize client losses due to inappropriateness in choosing a building architectural theme that suits the function and circumstances. actual.



**Figure 2.** Big Data Analysis Patterns  
Source: Google Image Search (Januari, 2024)

The urgency of this research is the increasingly rapid development of land conversion into tourism building functions in the Canggu Village Area. This speed is accompanied by the fact that there are very diverse architectural design themes that have been applied to existing tourism buildings so that at first glance they create an architectural atmosphere that lacks the characteristics of the locality of the Canggu area, and this diversity of themes is also not accompanied by an analysis of the accuracy of determining the theme so that many of these buildings which becomes less crowded or is deemed less suitable by potential users. Based on the background facts, problems and phenomena of the development of the architectural theme of tourism accommodation facilities in Canggu Village, research problem formulations can then be formulated, namely: 1) How can the Big Data role model determine the right architectural theme to be applied in the Canggu village area? 2) What kind of architectural theme is most suitable to be applied in the Canggu village area for tourism buildings so that they can be targeted and at the same time preserve the local value of local architecture?

## **2. LITERATURE REVIEW**

### **2.1 Architectural Design Considerations**

In designing, careful considerations are required following the principles of The Five Stars in Architectural Design plus two other factors according to Edress Munichi (2010) so that there are a total of 7 (seven) factors, namely (Rau & Andriana, 2023): 1) Function: The function of the building must be prioritized because in architectural design the building must function well and correctly; 2) Form: Form is closely related to aesthetics including the use of materials, color selection, and so on. This is necessary to get the desired image of the building; 3) Engineering (technics): The strength of buildings such as structure, construction, material components is a consideration in terms of building strength which is related to engineering; 4) Security: The safety factor is an important thing that must be considered in order to minimize loss of life and can be anticipated with the presence of sprinklers, hydrants, etc; 5) Comfort: Consideration of comfort, namely the building is able to provide comfort to users both in terms of thermal comfort and in terms of visualization; 6) Context: In accordance with consideration of the environmental context, the building was erected in accordance with Medan city regulations; 7) Efficient: Economic considerations also need to be taken into account. The buildings erected must be as efficient as possible.

### **2.2 Thematics in Architectural Design**

The use of thematics in the architectural design process is very important because it aims to realize the intentions and hopes of potential users. In involving thematics in the architectural design process, 3 (three) components of the thematic role must be understood. These components include (Dwiasta, 2014) : 1) Function: The function in question is that thematic application can strengthen the feeling of the function of the space. The space will also always be remembered for its maximum and clear spatial atmosphere due to the thematic application; 2) Image: The image discussed is about the identity and characteristics of the thematic application which can make a room memorable because it has a clear identity and characteristics of the space (sense of place). Imagery is now a benchmark for architects in working on their work until it is finally accepted by their clients; 3) Authenticity: Authenticity is meant by the presence of thematics in the design, the authenticity/originality of the architectural work will become an icon and characteristic of the work because it becomes visible to space users and at the same time

serves as a benchmark and reference for strengthening the function of the space that will be created subsequently. because it is hoped that the authenticity of the sense of place created will no longer be possible to find anywhere else.

Spaces that contain meaning and are symbolic can provide a certain specific atmosphere that can be felt by users of the space. The application of thematics in architectural design can provide meaning and symbolism through a dynamic touch by combining universal theme concepts into form and character, giving a fresh and attractive appearance. It is hoped that the use of thematics in design can create a good sense of place, plus the application can be seen in a real and continuous manner so that a sequence can be created in the space that will direct space users in enjoying this space.

A theme in architecture is an idea that needs to be explored and incorporated into the design to achieve certain desired conditions so that the building can have special characteristics and meaning (Ad'ha et al., 2017). Prof. Gunawan Tjahyono, Professor of the UI Architecture Study Program, once explained that themes are the basic basis for creating works of art. According to him, themes are important, because themes can determine the direction of the work (architecture) being designed, and the essence of themes in design is to facilitate communication between designer with other people, so that it can have an impact on the assessment and appreciation given (Dadang, 2013). Interaction between architectural objects and observers (the public) is a form of communication in architecture, especially communication in the language of architectural forms. Communication in architecture will be able to be established if the embodiment of the architectural form has a clear theme and concept. Exploration of design themes and concepts in architecture as part of the design process, both normative theory and positive theory, to produce architectural forms capable of creating characteristics, meaning and design philosophy. Exploration of themes and design concepts, especially public buildings, can go through a glass box or black box design process, this is influenced by the client, function, location and even local government policies and regulations (Cardiah & Sudarisman, 2018).

Theme in architectural design is then understood as a representation of the entire design, as an abstract and common thread of architectural planning and the design process which ultimately becomes the spirit or soul of the architectural design results (Cardiah & Sudarisman, 2018). To Dwell is an activity that not only lives and lives in an architecture that is affordable and accommodates the need for space and light but also contains the action of showing the existence of the user, so that the theme in architecture in Heidegger's understanding (being-in-the-world) can be also referred to as an instrument to express how someone lives/lives in a building (Martin, 2017).

Architectural Theme is closely related to Architectural Style, where architectural theme is an expression of values and meaning while Architectural Style is an empirical form of applying architectural themes to the form of buildings (Shape, Color, Spatial Planning, etc.). Architectural design with the right theme and in accordance with market needs is also an important component that must be considered in the architectural business. Commercial buildings will tend to prioritize appropriate architectural themes that suit market needs, so that sales can be maximized so that profits are maximized. Accuracy with market needs is then accuracy in understanding the visual needs, shapes and colors desired by the largest potential users who will use architecture.

### **2.3 Big Data in Architectural Design**

Use big data to provide architects with knowledge on how to design tourist accommodations that better meet the needs and preferences of visitors (Cheirchanteri, 2021). In this regard, the architect may derive an architecture of tourist accommodation based on knowledge obtained from the analysis of complete datasets associated with tourist behavior, preferences, and experiences. In the particular case of Canggu in Bali, this study can bring forth online reviews and social media data in unison with booking information so that common themes and preferences of tourists for that location can be exposed. This may inform the architectural theme and design to fulfill the desires and experiences sought by tourists in a better way (Zhou & Zhou, 2024). Important considerations in using big data to shape the architectural theme for tourist accommodations must include increased understanding of the preference of tourists in terms of building materials, architectural style, and amenities; identification of the leading themes and motifs that are easy to be acquainted with by visitors to the area; and tailoring of the overall design to come up with something unique and memorable in relation to the local culture and environment.

### **3. RESEARCH METHODS**

This research will use quantitative-exploratory research approach in exploring the problem. Quantitative-exploratory research approach are selected as they are suitable for investigating relationships between multiple variables and for exploring new phenomena with limited prior research (Niraula, 2019). This methodology typically involves the following key steps: 1) Data gathering: Collection of online user comments, images, and reviews related to information touching on architectural themes of tourist accommodations in Canggu village; 2) Data organization: Organizing the collected data in tables, diagrams, mapping, or graphs with the help of computer software like PowerPoint, Excel, or Microsoft Word; 3) Correlational analysis: Related analyses that link the variables of the collected data allow conclusions to be derived; 4) Conclusion of research: Presentation of the findings of the research. This will allow an in-depth and detailed examination of the research topic that is in line with the aims and objectives of the study. Such a methodology will enable the researchers to achieve an inclusive understanding of the phenomena by exploring the perspectives and meanings ascribed by individuals or groups to the relevant social issues (Cresswell, 2014).

The data collection method is a way to obtain the required data according to the variables that have been selected to conduct research. The data collection methods in this research are: 1) Big Data Exploration: This research will collect all relevant data that can be found in online applications related to the application of architectural themes to tourism buildings in Canggu Village; 2) Documentation: Collect existing data and arrange it in a book report, magazine or article. The documentation also includes photographs that can support the analysis of architectural themes. After collecting and filtering data using the big data analysis method, the data will then be analyzed using comparative and correlational analysis methods. This research method is based on statistics, where in applying this analytical method the researcher needs to consider the relationship between the research variables found and then process them, study them, and present/conclude them in detail. (Purwanto, 2022). The tabulation of architectural theme data collected will then be analyzed and classified into Ratio Data, Ordinal Data, Interval Data, or Nominal Data depending on which classification is most appropriate to produce the most appropriate conclusions. In general, big data analysis aims to find patterns, trends and

relationships in massive data sets, including ratio data, ordinal data, interval data and nominal data. This complex analysis requires special tools and technology, computing power, and data storage that supports this scale, so the help of computer software such as MS. Excel, Word, Photoshop and Power Point are very important.

#### 4. FINDINGS AND DISCUSSION

NO	SUMBER DATA	CODING NAMA SAMPLE	TIPOLOGI BANGUNAN	SKOR REVIEW	JUMLAH REVIEWER	IMAGE BANGUNAN REPRESENTATIF
1	Traveloka	CTDN	Apartemen	9,0	102	
3	Booking.com	PDVIL	Villa	9,5	62	
4	Booking.com	ZDCG	Hotel	8,6	107	
5	Booking.com	SMVLCASSA	Villa	8,6	10	
6	Traveloka	SCL	Hotel	8,5	890	
7	Agoda	SWRGBB	Hotel	8,9	1250	
8	Airbnb	VMY	Villa	4,94	81	
9	Traveloka	LRSVIL	Villa	9,1	35	
10	Traveloka	VIC	Guest House	8,4	9	
11	Agoda	ZNCV	Mix (Campuran)	9,1	1.341	
12	Agoda	LEAHC	Villa	9,5	266	
13	Traveloka	HTB	Resort	9,4	13	
14	Traveloka	LRSRV	Resort		3	
15	Booking.com	ASTCG	Mix (Campuran)	8,2	1735	
16	Booking.com	MAYAVI	Villa	9,1	67	
17	Agoda	CMUC	Mix (Campuran)	9	252	
18	Agoda	CHC	Hotel	9,6	577	
19	Airbnb	PATROSC	Apartemen		30	

Figure 3. Best Sample Tabulation Results Based on Big Data Exploration  
Source: Reseachers (2024)

##### 4.1 Data Gathering & Organizing

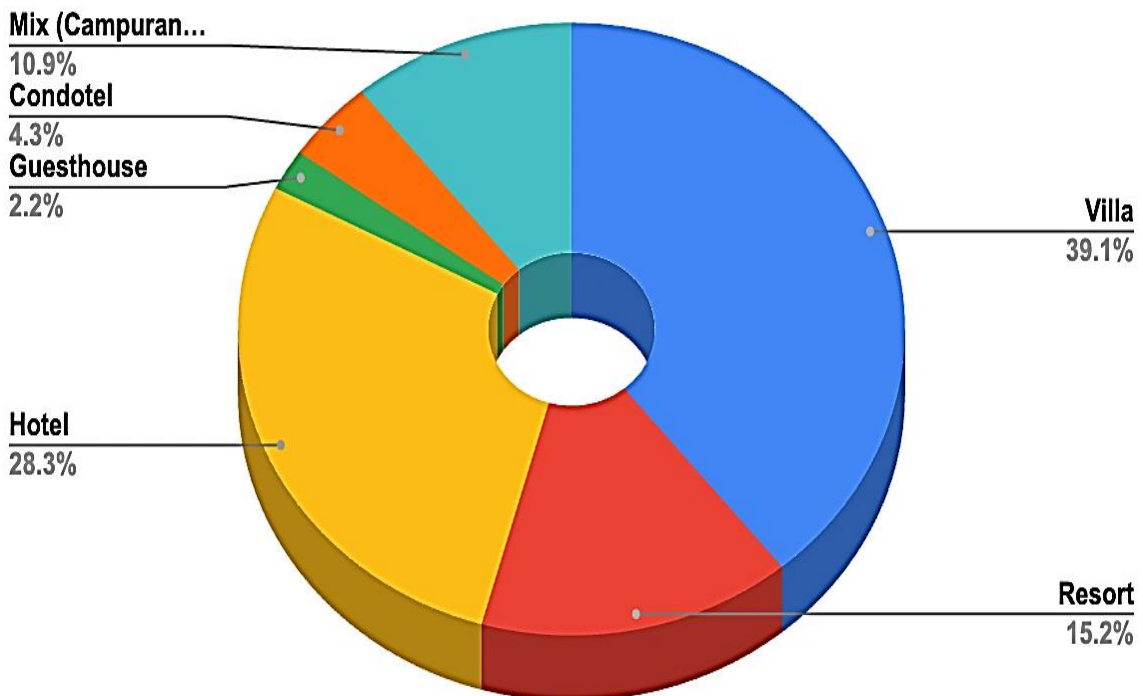
Based on the results of exploration and tabulation (data gathering & data organization) from big data sources in this research, 100 samples of tourism facility buildings that have the best reviews can be found and compiled. The best review here is categorized as that the sample has been able to pass the standard initial sample screening standards, namely: 1) Has 3-5 stars; 2) Number of Reviewers; 3) Reviewer Score. In reviewing each of these buildings, the reviewer is faced with several assessment components, namely: 1) Room Comfort & Quality; 2) Cleanliness; 3) Affordability (Value for Money); 4) Services; 5) Facilities provided (Facilities); 6) Location. Of the 100 samples that were found, the research team selected again to find the best samples with the highest review scores and number of reviews that were able to exceed 3 averages data calculation: 1) Having a 3-star rating or above; 2) have a review score of 4.26 or above; and 3) Has a total of 322 reviewers or above. The further selection process revealed that of the 100 samples, only 46 samples (46%) deserved to be declared the best of the best. From big data tabulation process researchers can found from the reviewers perspective/experience regarding data that has the most popular architectural themes correlation aspects related to tourist needs for pleasure are the combination of building design and nature (Nie et al., 2019).



**Figure 4.** Sample Data in One of Agoda.com's Big Data Tourism Source Applications  
 Source: Agoda.com (2024)

## 4.2 Data Analysis

Based on the results of further data selection, 46 samples were found. These 46 samples were then analyzed in detail and in depth regarding the thematic aspects of the architecture they had. In the process of deepening the samples, the existing samples were dominated by buildings functioning as tourist accommodation with various types such as: 1) Villas; 2) Hotels; 3) Resorts; 4) Mixed (Hotel-Resort/etc.); 5) Guesthouses. The percentage of the number of best data findings based on building type can be seen in Figure 5.3.



**Figure 4.** Percentage Analysis Number of Each Type of Tourist Accommodation Sample  
 Source: Researchers (2024)

The next process carried out by the researchers was to analyze the building characteristics of each recorded tourist accommodation to find the architectural themes adopted so that they could be tabulated or recorded in relation to any architectural themes applied in the Canggu Village area. The research team then carried out an analysis related to the dominance of material use, color, building shape (openings, global), roof shape, and decoration through in-depth analysis of architectural photos of tourist accommodation which are marketing photos consisting of interior and exterior photos.



MODASI	TIPOLOGI BANGUNAN	RATING	SKOR REVIEW	JUMLAH REVIEWER	MATERIAL DOMINAN	TONNE MATERIAL MAYORITAS	BENTUK ATAP	RAGAM HIAS NON BALI	BENTUK BUKAAN (ENTRANCE, PINTU, JENDELA, VENTILASI)	BENTUK GLOBAL BADAN BANGUNAN	IMAGE BANGUNAN REPRESENTATIF	TEMA ARSITEKTUR (SIMPULAN)
wa Beach	Apartemen	Bintang 4	4	9,0	102	Beton Plesteran Dicat	Putih	Pelana	Minimalis	Kotak Kotak (Standar)	Kubus	Arsitektur Modern Minimalis
ayan	Vila	Bintang 5	5	9,5	62	Beton Plesteran Dicat	Putih	Pelana	Minimalis	Elemen Diagonal (Garis Miring)	Segilima-Segienam	Arsitektur Modern Minimalis
u	Hotel	Bintang 4	4	8,6	107	Kayu	Coklat (Tanah)	Limasan	Minimalis	Kotak Kotak (Standar)	Kubus	Arsitektur Neo Vernakular
Beyond	Hotel	Bintang 4	4	8,5	890	Beton Plesteran Dicat	Putih	Datar	Minimalis	Kotak Kotak (Standar)	Campuran	Arsitektur Parametric (Bentuk Abstrak)
Bali Brawa	Hotel	Bintang 5	5	8,9	1250	Beton Plesteran Dicat	Abu-Abu	Pelana	Minimalis	Kotak Kotak (Standar)	Kubus	Arsitektur Bali Modern
	Vila	Bintang 4	4	4,94	81	Beton Plesteran Dicat	Putih	Melengkung	Minimalis	Elemen Lengkung	Kubus	Arsitektur Modern Minimalis
port &	Mix (Campuran)	Bintang 4	4	9,1	1.341	Bambu	Lainnya	Melengkung	Minimalis	Kotak Kotak (Standar)	Campuran	Arsitektur Neo Vernakular
nggu -	Vila	Bintang 5	5	9,5	266	Beton Plesteran Dicat	Abu-Abu	Datar	Minimalis	Kotak Kotak (Standar)	Kubus	Arsitektur Modern Minimalis
Beach	Mix (Campuran)	Bintang 4	4	8,2	1735	Beton Plesteran Dicat	Putih	Limasan	Minimalis	Kotak Kotak (Standar)	Kubus	Arsitektur Neo Vernakular
	Vila	Bintang 5	5	9,1	67	Beton Plesteran Dicat	Putih	Limasan	Style Eropa	Elemen Lengkung	Campuran	Arsitektur Modern Minimalis
nggu	Mix (Campuran)	Bintang 5	5	9	252	Beton Plesteran Dicat	Putih	Pelana	Minimalis	Kotak Kotak (Standar)	Kubus	Arsitektur Modern Minimalis

Figure 5. Data Analysis Relates to the Architectural Theme Adopted by the Sample  
Source: Researchers (2024)

Based on the analysis results relating to these aspects, it can be found that there are 5 architectural themes adopted from a total of 46 samples of the best tourist accommodation based on user reviews. The 5 architectural themes are: 1) Modern Minimalist Architecture; 2) Neo Vernacular Architecture; 3) Industrial/Bohemian Architecture; 4) Parametric Architecture (Abstract Shapes); and 5) Modern Balinese Architecture. After finding the architectural themes adopted, the research team analyzed the percentage of the most themes adopted in Canggu Village, and the results showed that the Modern Minimalist Architecture theme had the highest percentage, namely 56.52%, followed in second place by Modern Balinese Architecture at 19.57%.

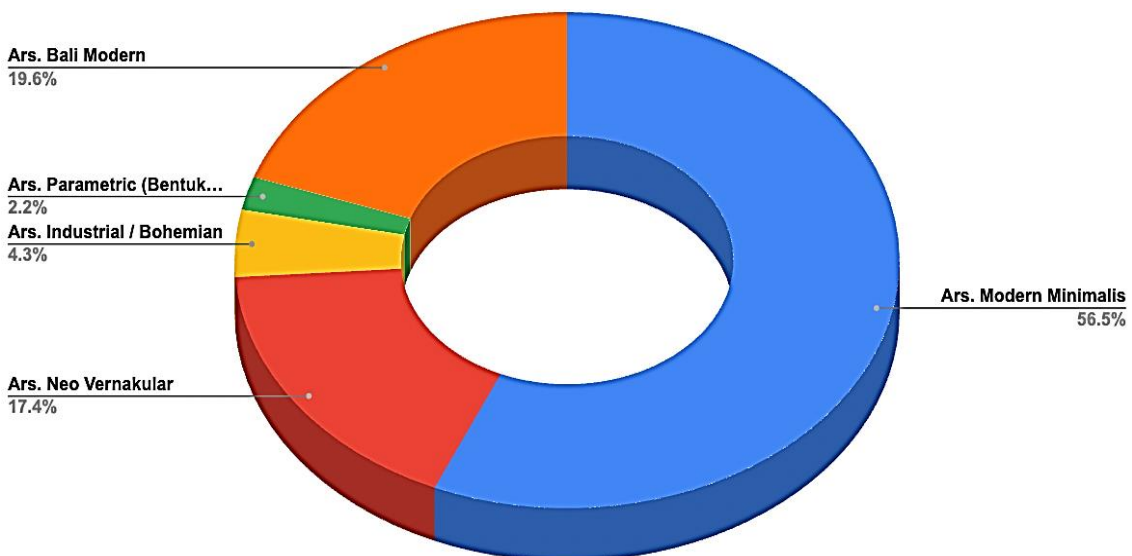
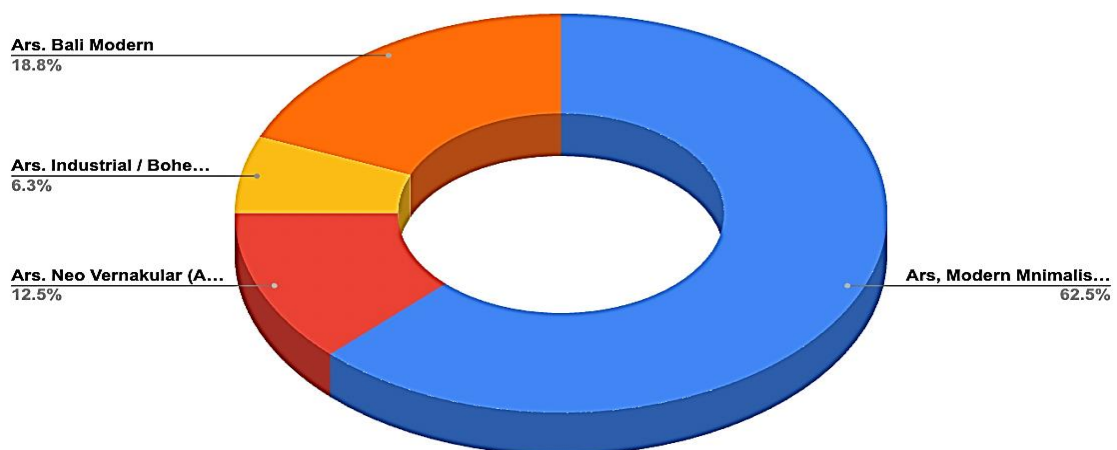


Figure 6. Analysis of the Percentage of Architectural Theme Findings from Tourist Accommodation  
Source: Researcher (2024)

As previously discussed in the literature section, architectural thematic or themes are a total combination of architectural components such as color, texture, shape, image, comfort, etc. Those related to terminology or special characteristics of the theme. 46 The samples that have been selected are then analyzed in depth regarding tourist review data relating to the elements that make up architectural themes. The next process is that the research team dissects the categorization of reviews on each application. In the process of finding review categories from tourism applications (agoda, Traveloka, booking.com, Airbnb, etc.) the research team found that there were a total of 5 (five categories), namely: 1) Comfort: The value of the comfort of the existing spaces and the quality of the tourist accommodation building as perceived by users (tourists); 2) Cleanliness: The value of the overall cleanliness of the space and facilities that exist and are used by users (tourists); 3) Value For Money: The value of the affordability of tourist accommodation prices for users (tourists); 4) Service: The value of the service of tourist accommodation staff in serving the overall needs of users (tourists); 5) Facilities: The value of the complete availability of facilities in tourist accommodation that can be maximally used by users (tourists). 6) Meal: The value of the meal served by the tourist accommodation staff Location: The value of the proximity; 7) of tourist accommodation to tourist destinations or popular tourist objects.

In connection with understanding the aspects that make up architectural themes, referring to the review categories, it was found that there was a correlation with the aspects that make up architectural themes in the "comfort" and "facilities" assessment aspects. The correlation of comfort and facilities with the architectural theme lies in the review description which states that the two categorizations are closely related to visual comfort and the comfort of activities using tourist accommodation spaces by tourists. The research team found that after examining the 46 samples again regarding the Comfort and Facilities assessment aspect, they found that each sample obtained an average score of 4.92 out of 5 (Traveloka) or 9.15 out of 10 (Booking.com, Agoda, etc.) which is the highest score. The highest score lies in the Modern Minimalist Architecture theme with a percentage of the number of samples that exceeds the average score of 10 (62.50%); followed by the theme Modern Balinese Architecture with 3 (18.75%); followed by the Neo Vernacular Architecture theme with 2 (12.50%); and finally the Industrial / Bohemian Architecture theme with 1 (6.25%). Details regarding the percentage calculation conclusions can be seen in Figure 4.6.



**Figure 7.** Analysis of the Percentage of Sample Architectural Themes with Comfort & Facilities Values Above the Average  
Source: Researcher (2024)

Based on the results of calculating the "comfort" and "facilities" aspects, it is known that the architectural theme of a tourism accommodation building plays a role in satisfying its users, or in this case the tourists who stay in the building. It turns out that tourist satisfaction shown through the review of the numerical scores in each application is also supported by the feature of adding qualitative narratives directly from users in the form of "Comments" which also function for criticism and suggestions for future service development. An in-depth investigation of the narrative found that it turned out that users even discussed directly the atmosphere of the space, architectural facades, building forms, layout and layout of the tourist accommodation building where they were staying. The search then leads to a tabulation of keywords that lead directly to the aspects mentioned previously, this tabulation can be seen in Figure 5.7.

**Table 1.** Sample Tabulation with Narrative Comments on Architectural Themes by Users

No.	Sample	Architectural Theme	Keywords
1	CTDN	Arsitektur Modern Minimalis	"The Hotel Design is Superb"
2	PADVIL	Arsitektur Modern Minimalis	"This Villa is really beautiful, modern, well kept"
3	ZDC	Arsitektur Neo Vernakular	"The aesthetic of the accommodation was simple but beautiful"
4	SWRGSB	Arsitektur Bali Modern	"Beautiful Resort"
5	SCL	Arsitektur Parametric	"The advantage of having high art architecture and spots that can be used for relaxation or taking photos"
6	ZCR	Arsitektur Neo Vernakular	"Stylish Place"
7	THBOH	Arsitektur Industrial / Bohemian	"The Interior of Bohemian is exceptional, you can tell the owner putting effort in every detail"
8	PGKSR	Arsitektur Bali Modern	"The Time was comfortable and spacious"

Source: Researcher (2024)

The figure displays three sample reviews from a travel platform, each highlighting specific architectural and service aspects:

- Review 1 (Tait, New Zealand):** Rated 10.0 (Exceptional). The reviewer describes the villa as "Nestled amongst the rice padi fields, the Padi Villas are the perfect accomodaiton if you're looking for luxurious accommodation, near enough to the action of Canggu but also far enough away you can get your peace and quiet. The pool and facilities are exceptionally clean, the room feels like it is brand new with beautiful decor and all the amenities you need. AC worked really well too." The reviewer also mentions it was a perfect place to relax before going home.
- Review 2 (Agung G.):** Rated 8.4 / 10. The reviewer notes: "Kelebihan: punya arsitektur seni yang tinggi, banyak function dan spot yang bisa dimanfaatin untuk relaxasi atau taking photos. Buat yang butuh ketenangan, di hotel ini tempat ya dan anda bisa dapatkan. Stafnya yang ramah dan membantu membuat masa menginap jadi lebih menyenangkan. Kekurangan: sangat disayangkan ...". The review includes photos of the accommodation's interior and exterior.
- Review 3 (Shi, Singapore):** Rated 10.0 (Exceptional). The reviewer states: "beautiful design & great location" and "lovely stay and impeccable service!". The review is dated May 07, 2023.

**Figure 8.** Sample Specific Findings of Consumer Reviews on Thematic Aspects of Architecture

Source: Researcher (2024)

## 5. CONCLUSION

Based on the process of finding findings which were the results of the research, the research team concluded that:

- a. In applying the architectural theme to tourism facility buildings, especially tourist accommodation buildings in the Canggu Village area, it is very relevant and appropriate to apply the theme of Modern Minimalist Architecture or Modern Balinese Architecture based on the excellent scores and comments given by tourists who have stayed previously.
- b. The application of certain architectural themes can have an impact on the user's level of comfort, for example Industrial / Bohemian Architecture or Parametric Architecture which have narrative comments that highly praise the architectural form-material layout but the score in terms of comfort & facilities is still below average, this means that the application of the theme has an effect on the presence of space that is spacious, comfortable, cool, etc. (ambience) which will most likely be sacrificed in order to realize an architectural theme.
- c. The finding that the Modern Balinese Architecture Theme is in 2nd place as an architectural theme that has a very good number of scores and narrative comments, indicates that Balinese Architecture still has a place as an Architectural Theme that is worthy of providing spatial and visual comfort for its tourist users.
- d. This Big Data-based analysis is very good if applied in research because it is up to date because every time there will always be reviews from guests who stay overnight through tourism applications that record them, so it is felt that this kind of model analysis will able to lead to more relevant research conclusions because it is based on accurate and up to date numerical data.

Some of these insights may be the main considerations in applying architectural themes for tourism buildings, especially future tourist accommodation for private institutions. Government institutions or authorized agencies can use it to prepare tourism building plans that are comfortable for tourists, but still safe according to applicable local rules, so that the fairly rapid tourism development in Canggu Village can be anticipated optimally and relevantly. From this research, researchers suggest potencies for further research may open widely in terms to make a better analysis for other architectural aspects so that architectural design process could always be optimized for the user that needs it.

## REFERENCES

- Ad'ha, P. W., Rachmawati, M., & Nuffida, N. E. (2017). Penerapan Tema Atraktif dalam Rancangan Taman Wisata Brawijaya Malang. G67–G70. <https://media.neliti.com/media/publications/15453-ID-penerapan-tema-atraktif-dalam-rancangan-taman-wisata-brawijaya-malang.pdf>.
- Bakrie University. (n.d.). Kenalan Manfaat Big Data dalam Dunia Sistem Informasi! - Universitas Bakrie. Retrieved January 8, 2024, from <https://bakrie.ac.id/articles/578-kenalan-manfaat-big-data-dalam-dunia-sistem-informasi.html>.
- Bernada, C. C. (2023). Perkembangan Wisata Nomadik Di Kawasan Canggu, Bali [Universitas Gadjah Mada]. <http://etd.repository.ugm.ac.id/>.
- Cardiah, T., & Sudarisman, I. (2018). Exploration of Themes and Design Concepts as a Communication Form in Architecture. 3rd International Conference on Creative Media, Design and Technology (REKA 2018). <file:///Users/suryanathaprabawa/Downloads/25906918.pdf>.

- Cheirchanteri, G. (2021). Architecture as a Product of Tourism Consumption. *IOP Conference Series: Materials Science and Engineering*, 1203(3), 032004. <https://doi.org/10.1088/1757-899x/1203/3/032004>.
- Dadang. (2013, May). Kaji Materi tentang Tema dalam Arsitektur - ITS News. ITS NEWS. <https://www.its.ac.id/news/2013/05/17/kaji-materi-tentang-tema-dalam-arsitektur/>.
- Malini, & Nurhadi. (2024). Apa Itu Digital Nomad? Tempo.Co. <https://gaya.tempo.co/read/1816565/apa-itu-digital-nomad>.
- Martin, F. (2017). Analyzing Architectural Types and Themes as a Design Method. In L. Francisco Rico-Gutierrez & M. Thorne (Eds.), *105th ACSA Annual Meeting Proceedings*, Brooklyn Says, "Move to Detroit" (pp. 419–423). <https://www.acsa-arch.org/chapter/analyzing-architectural-types-and-themes-as-a-design-method/>.
- Nie, W., Wang, W., Xu, J., Wang, S., Fang, S., & Chen, Z. (2019). Visual Evaluation and Analysis of the Architecture for Scenic Tours Based on Psychophysical Methods. *IOP Conference Series: Earth and Environmental Science*, 218(1). <https://doi.org/10.1088/1755-1315/218/1/012034>.
- Purwanto, L. (2022). Macam Metode Penelitian Dalam Arsitektur. [https://jurnal.unmer.ac.id/index.php/jam/article/view/7001/pdf\\_1](https://jurnal.unmer.ac.id/index.php/jam/article/view/7001/pdf_1).
- Qothtrunnada, K. (2023). Rekomendasi Aktivitas Menarik di Canggu Bali, Seru Banget! <https://www.detik.com/bali/wisata/d-6368834/rekomendasi-aktivitas-menarik-di-canggu-bali-seru-banget>.
- Rau, F. A., & Andriana, M. (2023). Perencanaan City Hotel di Jl. Gatot Subroto dengan Tema Arsitektur Modern. *INNOVATIVE: Journal of Social Science Research*, 3, 14354–14365.
- Raj Niraula, S. (2019). A review of research process, data collection and analysis. *Insights in Biology and Medicine*, 3(1), 001–006. <https://doi.org/10.29328/journal.ibm.1001014>.
- Wahyundaria, D. A., & Sunarta, N. (2020). Jurnal Destinasi Pariwisata Identifikasi Dampak Perkembangan Pariwisata terhadap Lingkungan di Desa Canggu, Kecamatan Kuta Utara, Kabupaten Badung. *Jurnal Destinasi Wisata*, 9(1), 225–233.
- Yusdy Dwiasta, A. (2014). Pemanfaatan Tema Arsitektur Tradisional Lokal Terhadap Transformasi Bentuk Dan Fungsi Arsitektur Di Perkotaan Dalam Konteks Kekinian. 12.
- Zhou, L., & Zhou, S. (2024). Design of Virtual Tourism Interactive Products Based on Deep Features. *Computer-Aided Design and Applications*, 21(s7), 104–118. <https://doi.org/10.14733/cadaps.2024.S7.104-118>.

