

# Pricing strategy and buyer's considerations for house: Central government area vs tourism centre area

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## **Abstract**

The purpose of this study is to propose Pricing Strategy. First, this study determines the dominant factors that influence the housing prices in Denpasar as the Capital city of Bali Island, a center of tourism in Indonesia, and Jakarta as the Capital City and central government of Indonesia. This study uses a multiple linear regression test; the sample was 115 houses data, 60 houses in Denpasar and 55 in Jakarta. Second, this study will propose a strategy for determining house prices. The survey results will show what factors are dominant in determining the number of housing prices in Denpasar and Jakarta. This research is helpful for home sellers to determine the cost of the house to be sold. This research is also beneficial for prospective home buyers to assess the reasonableness of the house price they will buy. This study also covers the discussion regarding the consideration of homebuyers in terms of taxes.

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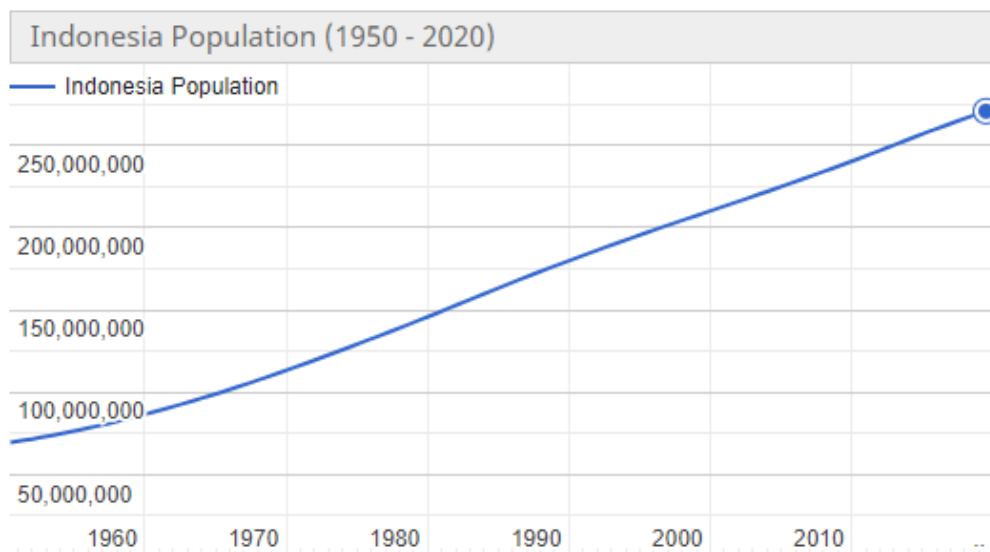
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## Introduction

Indonesia is a country with a large population and a high population growth rate. On Wednesday, July 5, 2022, Indonesia's population was 279,313,102, based on the elaboration of the latest United Nations data ([World Population Review, 2022](#) and [Worldometers, 2022a](#)). Indonesia's population is equivalent to 3.51% of the total world population. With such proportions, Indonesia is ranked number 4 in the list of countries based on population, after China, India, and the USA ([Worldometers, 2022b](#)). The graph of population growth in Indonesia can be seen in Figure 1.



**Figure 1.**  
*Indonesia Population (1950-2020)*  
Source: Worldometers (2022)

Home is vital for human life besides the need for food and drink. House has been one of the essential human needs since prehistoric times as a shelter. Evolution and technology move forward in line with time. So now, the home is not only a place to live but also has become a measure of one's standard of living and long-term investment for homeowners. The large population in Indonesia means that the need for houses as a place to live is also getting more prominent, following the Supply and Demand Theory. The increase in population also raises the need for housing, resulting in the emergence of property developers both individually and in organizations—the emergence of property developers resulting in increased home price competition. The growth of the housing business causes developers to compete by attracting consumers to choose the house. One factor that can attract consumers is the selling price. Because of high competition, the housing company must know which factors will determine the house's price.

Denpasar is the capital of Bali province, the most famous tourism centre in the World. The beautiful nature of Bali makes the island of Bali always crowded with tourists from all over the World. Denpasar city land is very narrow, 127.78 km<sup>2</sup> of the total area of Bali, which is 5636.66 km<sup>2</sup> ([BPS, 2022](#)). When opening the Sanur Village Festival XIV in August 2019, Indonesian Tourism Minister Arief Yahya said that Bali Tourism alone contributed 40% of the national tourism

foreign exchange of 7.6 billion US dollars, equivalent to around Rp100 trillion (Putera, 2019). So tourism certainly affects the property business in Bali. The price of land and buildings in Bali is costly because of the lack of available land. The COVID-19 virus from 2020 until now has not prevented Bali from operating as a tourist destination. Indeed, COVID-19 shook Bali, but with the help of the local and national governments, Bali was reopening and was still regarded as a world-class tourist destination. The area of Bali, especially the city of Denpasar, is still popular with property speculators who are aggressively seeking land for investment and business.

Unlike other countries with the capital as a government Centre, and also have capital for business, industrial, and entertainment centres, Indonesia has Jakarta as a government Centre, business centre, and industrial and entertainment centre. In Jakarta, the government erects many buildings, from ministries to non-ministerial state institutions. Of course, this affects buildings in the vicinity that have experienced price increases. In addition, Jakarta's infrastructure is complete, so the price of land and surrounding buildings will also go up. Many people pass by Jakarta to work in business and industry centres. The entertainment centre factor also raises the price of land and buildings in Jakarta.

For many years, very little research has been conducted to understand consumers' needs and wants regarding housing preferences and interests (Mills, 2000). According to MacLennan (2002), housing is a bundle of attributes. Some of these attributes are derived from the internal characteristics of the housing unit, such as the number of rooms, and facilities, while external is location and accessibility to utilities. Hence, Ozaki (2002) has suggested that researchers focus on this issue and simultaneously bridge the gaps between consumers and housing developers. Therefore, it is imperative to investigate consumer perceptions, particularly various factors influencing their buying behaviour. Customers' perception is essential since this study may provide crucial insight for real estate developers to satisfy the needs and wants of their customers to determine house prices. Hong et al. (2019) evaluated the impact of construction year, area, number of building floors, and distance to numerous key destinations in predicting Gangnam, South Korea, real estate market prices. Hong et al. (2019) found that all variables affect property prices except for the distance of the building from essential places, because land in Korea is minimal, or because Korea's transportation infrastructure is so advanced that consumers do not consider the distance of the building. Usman et al. (2021) studied the influence of building size, building age, and building height on building pricing. The test is conducted by linear regression and compares five areas of property sub-markets in Malaysia, namely Gombak, Hulu Langat, Hulu Selangor, Kelang, and Kuala Lumpur; the results indicate that the test must be conducted per sub-area to obtain accurate prediction results for determining building prices.

This study will also examine the factors that determine home prices. As far as is known, no research has ever been conducted to estimate property values by comparing predictions in the nation's capital with tourism centres in the same country. The world-famous tourist destination of Bali is located on the Indonesian island, making Indonesia a highly unique country. The study was conducted to compare the factors affecting the selling price of houses in the Denpasar and

Jakarta areas. Aspects of the location of housing, physical facilities, and public facilities are the main focus and limit the scope of the study in this paper. This study benefits various parties who play a prominent role in the housing sector. The housing company must know which factors will determine the price of the old house. The housing company needed accuracy in making decisions, which must be considered and considered for the housing developer to set housing prices. Prospective buyers also need to know what factors influence the formation of House Prices to buy a house reasonably. This study also covers the discussion regarding the consideration of homebuyers in terms of taxes.

## **Theoretical framework and model**

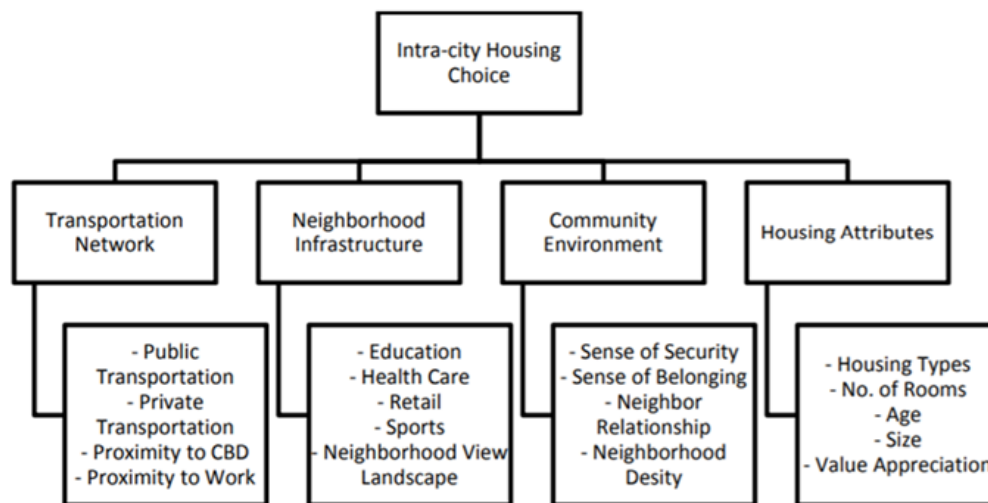
Consumer buying behavior is studied as a part of marketing, and its main objective is to learn how consumers choose, buy, use, and dispose of the goods and the service they need and want (Kotler & Keller, 2012). One of the main highlights during the selection process is that the consumer estimates the available money they can spend. Finally, the consumer analyses the prevailing prices and decides the commodities. Price can be defined as exchange rates between two parties that carry out any dealing or transaction. Price can also be defined as a transaction medium where one party pays for the products or services the other party provides.

From a real estate perspective, house buyers will begin by identifying the objectives of buying residential properties and then measure the related factors before (Thaker & Sakaran, 2016). From a real estate perspective, price is considered a critical factor in decision-making (Salleh et al., 2015). The price imposed by the developer is based on the current market price. Housing has many features that distinguish it from other assets, like equity. Real estate is not only an asset but also a durable consumption suitable for households, providing shelter and other housing services. As a result, a house is often the largest and most important asset of households and therefore accounts for a significant share of household wealth (Goodhart & Hofmann, 2007).

The urban amenities theory is the grand theory of this study. This theory gives a foundation for comprehending the factors that influence housing demand. According to the urban amenities theory, land values primarily explain housing prices, and proximity to amenities influences land values (Herath, 2021). In this study, the Hedonic Price Method is the analytical tool. Theoretically, the hedonic pricing model is based on Lancaster (1966) and Rosen (1974). According to Lancaster's characteristics demand hypothesis, customers get utility not from the things themselves but their features. Thus, the consumption of a thing can be viewed as the consumption of the good's composite qualities. The features demand theory was extended to the hedonic pricing model by Rosen (1974). He proposed that the value of a product may be divided into the values of its qualities. Under the assumption that each attribute has a special implicit price in a market at equilibrium, the price of an item can be understood as the sum of the attribute prices, meaning that the price of a good can be regressed on its features.

Wen and Goodman (2013) researched the urban land price and housing price as endogenous variables, five factors for the land price, and seven factors for housing price as exogenous variables. Housing price and land price have an endogenous interrelationship, and as a whole, housing price has a more significant influence on the land price. Per capita, disposable income is not only an essential factor for the land price but also directly impacts housing prices.

Wen, Bu, and Qin (2014) analyze the spatial effect of the urban lake on housing prices in two ways: direction and distance heterogeneity. Results show that West Lake has a significant positive effect on housing prices. The housing price will drop by .15% as the distance to West Lake increases by 1%. The amenity effect of West Lake on housing prices exhibits the directional and distance heterogeneities. Nur Azizah et al. (2015) performed calculations to determine the selling price of a house using the Tsukamoto fuzzy inference system. The tests concluded that genetic algorithms could significantly reduce errors in determining house prices. The use of fuzzy logic alone can still get relatively large errors; therefore, genetic algorithms are used to determine the appropriate value limit of membership functions to reduce the error value. A previous study that places in the real estate industry is based on Li's (2010) research called intra-city housing alternatives. He found that eight factors and 18 attributes were assessed in his research—the factors listed in figure 2.



**Figure 2.**  
*Intra-city Housing Choice Hierarchy*  
 Source: Li (2010)

Hong et al. (2019) studied the impact of construction year, area, number of building floors, and distance to multiple significant destinations on predicting the prices of Gangnam, South Korea, real estate market. They concluded that all variables affect property prices except for distance from critical destinations because the land is scarce in Korea or because Korea's transportation infrastructure is so advanced that consumers do not consider the building's location. Usman et al. (2021) analyzed the impact of building size, building age, and building height on building prices. Comparing five property sub-market locations in Malaysia, namely Gombak, Hulu Langat, Hulu Selangor, Kelang, and Kuala

Lumpur, the results indicate that the test must be conducted in each sub-area in order to acquire appropriate prediction results for estimating building prices. Herath (2021) proposed a framework referred to as a consumer preference-based approach to urban amenity provision to illustrate how hedonic prices disclose the values inhabitants attribute to adjacent amenities and how planners might use this knowledge in their decision-making. This new framework, based on a house price model generally used to explain housing demand and pricing

## Methods

This study uses secondary data obtained from the website: rumahku.com. There are 60 data houses in Denpasar and 55 in Jakarta used in this study. This study used multiple linear regression methods to study the influence of ten independent variables, i.e., Distance1, Distance2, Distance3, Electricity, Building Area, Land Area, Number of Bedrooms, Number of Bathrooms, Free-flood area, and Security Availability on the House Prices as dependent variables.

House Prices, measured using billions of rupiah, Distance1 is the distance between the house and the main road in kilometres, Distance2 is the distance between the house and the city centre in kilometres, electricity is measured in units of Kwh, Distance3 is the distance between the house and public facilities, Building Area is the area of house building in m<sup>2</sup>, Land Area is the area of land where the building is in m<sup>2</sup>, Number of Bedrooms is measured in units of the number of bedrooms, Number of Bathrooms is measured in units of the number of bathrooms, Free flood is measured by one if free flood and 0 if not free flood, and Security Availability is measured by one if available and 0 if not available.

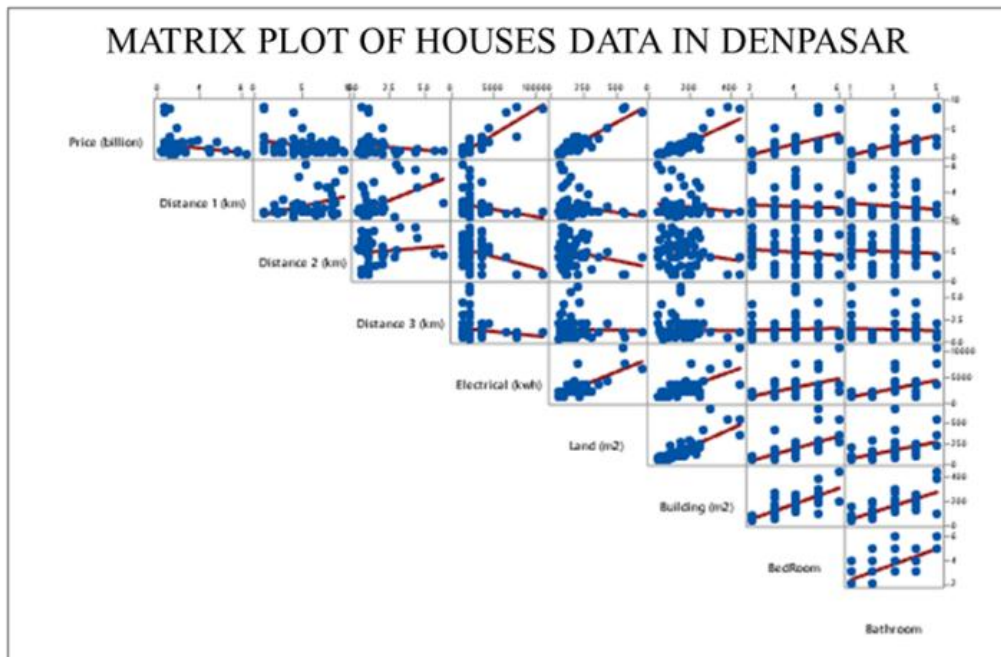
Some analytical techniques carried out in this study are as follows: (1) descriptive statistics were carried out to find a picture of the data obtained. (2) A matrix Plot was conducted to see the distribution of data, with the Y-axis being the house price and X being ten independent variables determining the house price. (3) The correlation test is performed on independent variables with interval and ratio data to detect the presence of multicollinearity. (4) Regular Test, as a condition of using the parametric statistical test, a normality test on the residual value of the regression equation is performed. (5) Regression Test. It is done to determine which variables affect the price of the house. Two regression equations will be compared, namely (1) regression equation for houses data in Denpasar and (2) regression equation for houses data in Jakarta. The five analysis techniques above will be used for both Denpasar and Houses data in Jakarta.

## Results and discussion

### Descriptive statistics

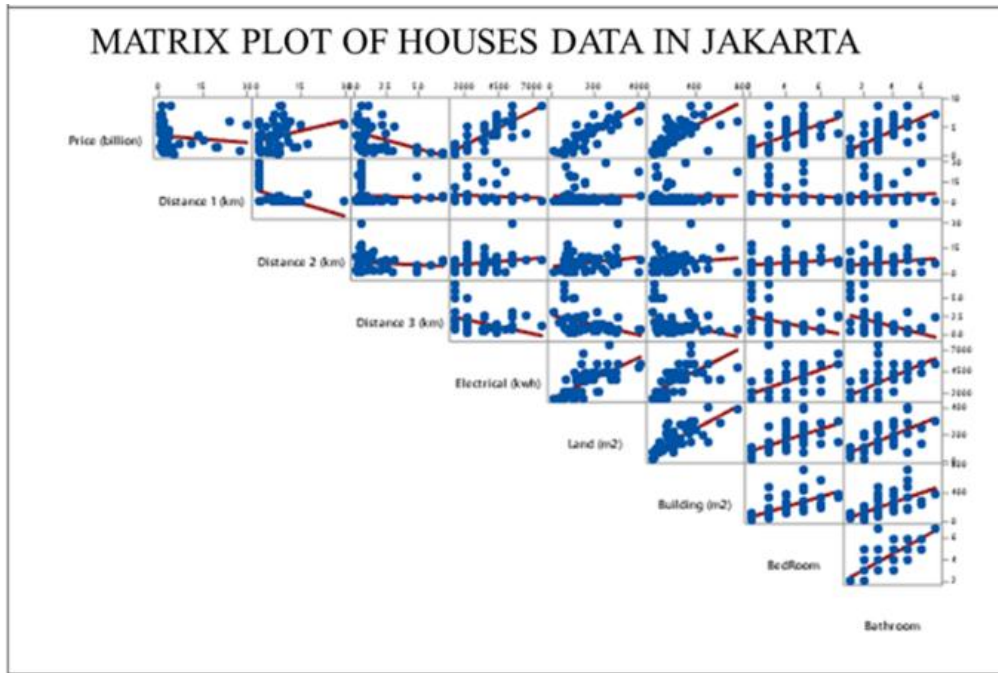
From Appendix 1 it can be seen the sample characteristics of the two cities. It can be seen that the data of houses in Jakarta have a greater distance from the main road and the city centre compared to houses in Denpasar; this is due to the area of the city of Jakarta 661.5 km (Jakarta Opendata, 2022), six times the area of Denpasar City. The land area of a house in Denpasar is more expansive than a house in Jakarta; this shows that the density of houses in Jakarta is denser than in

Denpasar. The building area in Jakarta is more expansive than in Denpasar; this is reasonable because there are many terraced houses in Jakarta, while in Denpasar, there are regulations that houses should not be taller than temples that not all houses can be terraced.



**Figure 3.**  
*Matrix Plot of Houses Data in Denpasar*  
Source: Calculated data (2021)

The matrix plot (Figure 3 and 4) shows the visualization of the data distribution used in this study. The focus of the discussion is on the Y-axis. House prices with the X-axis are non-categorical independent variables. From the Matrix Plot of home data in Denpasar, it can be seen that distance1, distance2, and bathroom do not correlate with house prices; this can be seen from irregular patterns and does not follow fit line regression. Whereas in Denpasar City, Distance3 seems to correlate with house prices negatively. Electricity, land, buildings, and bedrooms positively correlate with home prices. From the Matrix Plot of house data in Jakarta, it can be seen that distance1, distance2, building, bedroom, and bathroom do not correlate with house prices; this can be seen from irregular patterns and does not follow fit lines regression. Whereas in Jakarta, Distance3 seems negatively correlated with house prices. Electricity and land have a positive correlation with home prices.



**Figure 4.**  
*Matrix Plot of Houses Data in Jakarta*  
 Source: Calculated data (2021)

**Correlation analysis**

The Pearson Correlation test is only done on independent variables with non-categorical data. From Table 1, it can be seen from the two cities that there is no correlation approaching the number 1, which indicates a strong correlation. However, some correlation numbers show numbers above .70, so multicollinearity is possible in several independent variables. A multicollinearity test will be conducted using Variance Inflation Factors to clarify the test results further.

**Table 1.**  
*Correlation Test (Denpasar and Jakarta)*

Denpasar							
	Dist 1 (km)	Dist 2 (km)	Dist 3 (km)	Elect (kwh)	Land (m <sup>2</sup> )	Build (m <sup>2</sup> )	BedRoom
Distance 2 (km)	.41						
Distance 3 (km)	.55	.10					
electrical (kwh)	-.20	-.27	-.13				
Land (m <sup>2</sup> )	-.10	-.24	-.02	.75			
Building (m <sup>2</sup> )	-.15	-.20	-.03	.72	.78		
BedRoom	-.06	-.11	-.05	.53	.65	.76	
BathRoom	-.15	-.06	-.05	.55	.48	.73	.70

Jakarta							
	Dist 1 (km)	Dist 2 (km)	Dist 3 (km)	Elect (kwh)	Land (m <sup>2</sup> )	Build (m <sup>2</sup> )	BedRoom
Distance 2 (km)	-.43						
Distance 3 (km)	-.09	-.10					



electrical (kwh)	-.07	.20	-.36				
Land (m <sup>2</sup> )	-.00	.24	-.37	.70			
Building (m <sup>2</sup> )	-.00	.15	-.31	.67	.78		
BedRoom	-.06	.16	-.37	.06	.59	.61	
BathRoom	.07	.18	-.42	.64	.66	.63	.77

Source: Calculated data (2021)

### Normality

The normality test (Appendix 2) is carried out on the residual value of the first regression equation, that is, for data on Denpasar city houses, and on the residual value of the second regression equation, that is, for Jakarta city house data. From Figure 3, it can be seen that the P-value of the residual equation in the Denpasar regression equation is .31; this shows that the distribution of residuals is normally distributed. Figure 3 shows that the P-value of the residual regression equation in Jakarta is .10; this shows that the distribution of residuals is normally distributed. Because the residual values of the two equations are normally distributed, the Multiple Linear Regression Test can be performed.

### Regression

Appendix 3 shows four variations of the regression equation based on two variables that have categorical data, namely free flood, and security. If seen, the four equations have the same variable coefficient values. The difference is in the constant value. For example, the Distance1 coefficient value is .06 in four equations and the other non-categorical variables in this study. The constant value indicates the House Price if all non-categorical variables are zero or not included in the study. From the constant values, it can be seen that the difference in the availability of security results in a significant difference in the value of the house (no security = .26 and .20, there is security = .57 and .51). The difference between a flood-free zone and no one does not result in a significant change in a constant value. The regression equation shows that housing prices in Denpasar are more dependent on the presence or absence of security than in flood-free areas because the whole area of Denpasar is flood-free. Home sellers and prospective buyers can use the four regression equations in table 3 to determine an affordable home price.

Appendix 4 shows the influence and direction of ten independent variables on house prices in Denpasar as the dependent variable. Hd1, Hd2, Hd8, Hd9, and Hd10 are not supported, and Hd3, Hd4, Hd5, Hd6, and Hd7, are supported. It can be seen that the distance from home to public facilities (Distance 3) hurts house prices. People buy houses in Denpasar for vacation and leisure and favour homes near public facilities.

Electricity positively affects house prices; a large amount of electricity capacity causes occupants of homes in the electronic age to use sizeable electrical power freely. Land area and building area have a positive effect on house prices. The number of available beds hurts house prices; this is due to the characteristics of residents in Denpasar who like a spacious room even though a little more than much space but narrow. Balinese people need space for worship, so they prefer using space as a place of worship rather than a bedroom.

The variables that most influence housing prices in Denpasar are land area, electricity, number of bedrooms, building area, and the distance between the house and public facilities. The distance between the houses to the main road, the distance between the house to the city centre, the number of bathrooms, and whether there is a security and flood-free area do not affect the price of houses in Denpasar. The availability of sharing economy applications such as Grab and Gojek make it easy for residents of homes far from essential places to get their needs without having to leave the house.

Appendix 5 shows four variations of the regression equation based on two variables that have categorical data, namely free flood and security. If seen, the four equations have the same variable coefficient values. For example, the Distance1 coefficient is -.02 in four equations and the other non-categorical variables in this study. The difference is the constant value. From the constant value, it can be seen that if the house is not flood-free and does not have a security system, then the constant value is .575; if the house is not flood-free and has a security system, then the constant value is 1,763, if the house is flood free and does not have a security system then the constant value is 1,65, if the house is flood free and has a security system, the constant value is 2,84 The constant value indicates the House Price if all non-categorical variables are zero or not included in the study. The change in the value of the constant shows that house prices in Jakarta depend on the presence or absence of security and flood-free area. Home sellers and prospective buyers can use the four regression equations in table 2 to determine the price of a good home.

**Table 2.**  
*Regression Equation for House Data in Jakarta*

<i>Term</i>	<i>Coef</i>	<i>SE Coef</i>	<i>T-value</i>	<i>P-Value</i>	<i>VIF</i>
Constant	.57	.49	1.15	.25	
Distance 1 (km)	-.03	.016	-1.72	.09	1.44
Distance 2 (km)	-.02	.02	-0.82	.41	1.44
Distance 3 (km)	-.16	.06	-2.40	.02	1.33
electrical (kwh)	.00	.00	3.96	.00	2.68
Land (m2)	.00	.00	3.07	.00	4.75
Building (m2)	-.00	.00	-1.02	.31	3.04
BedRoom	-.15	.13	-1.15	.25	2.94
BathRoom	.18	.13	1.38	.17	3.41
Flood	1.08	.40	2.67	.01	3.87
Security	1.18	.45	2.64	.01	4.51

Source: Calculated data (2021)

Table 2 shows the influence and direction of the ten independent variables on house prices in Jakarta as the dependent variable. Hj1, Hj2, Hj6, Hj7, Hj8 not supported and Hj3, Hj4, Hj5, Hj9, Hj10 supported. It can be seen that the distance from home to public facilities (Distance 3) hurts house prices; this is because people buying houses in Jakarta want to avoid traffic jams that are the daily habits of Jakarta residents, so they favour homes that are near from the crowd.

Electricity positively affects house prices; a large amount of electricity capacity causes occupants of homes in the electronic age to use sizeable electrical power freely. The land area has a positive effect on house prices. Variation in the presence or absence of a security system positively affects house prices. Similarly, variations in flood-free areas have no positive effect on home prices.

**Table 3.**  
*Comparative Regression Test Result*

Variables	Denpasar	Jakarta
Distance 1 (km)	X	X
Distance 2 (km)	X	X
Distance 3 (km)	V (-)	V (-)
electrical (kwh)	V (+)	V (+)
Land (m <sup>2</sup> )	V (+)	V (+)
Building (m <sup>2</sup> )	V (+)	X
BedRoom	V (-)	X
BathRoom	X	X
Flood	X	V (+)
Security	X	V (+)
<b>R-Square (Adj)</b>	<b>93.02%</b>	<b>89.83%</b>

Source: Calculated data (2021)

The distance between the house and the main road, the distance between the house and the city centre, the extent of the building, and the number of bathrooms do not affect the price of houses in Jakarta. The variable order that most influences the price of houses in Jakarta is electricity, land area, free flood, security system availability, and the distance between the house and public facilities.

The x sign-in table 3 shows that the independent variable does not affect house prices; the sign v (-) shows the independent variable hurts house prices. The sign v (+) shows that the independent variable positively affects house prices. In the regression test for Denpasar City data, the R squared (Adj) value of 93.02% was found, meaning that the House price value was formed by independent variables of 93.02% and other variables outside the study formed the remaining 6.98%. In the regression test for Jakarta City data, the R squared (Adj) value of 89.83% was found, meaning that independent variables of 89.83% formed the House price value, and other variables outside the study formed the remaining 10.17%.

### **Discussion and practical implications**

In Denpasar and Jakarta, the distance between the house and the main road is no longer a consideration in determining housing prices. For the city of Denpasar, this is because Denpasar residents tend to have private vehicles, so the distance between the house and the main road is not essential. For residents of Jakarta, the lack of land can cause home buyers to not care about the distance to the main road as long as it is still in the Jakarta city area. The distance between the house and the city centre is also not considered for determining housing prices in Denpasar and Jakarta. According to [Alonso \(1964\)](#), the distance to a CBD is the primary factor

affecting housing costs. However, this approach has drawn criticism since it cannot account for polycentric spatial structures. It is especially troublesome in this day and age when many members of the household labour across multiple locations (Heikkila et al., 1989). Therefore, it may be argued that access to transportation hubs or even transportation infrastructure (from which one can quickly travel to numerous destinations) is arguably more crucial. Hong (2021) mentioned that proximity to the location is no longer a factor when purchasing a home, particularly in places with adequate transit. In addition, the COVID-19 epidemic has hastened the development of information technology, allowing customers to meet online rather than in person. Food delivery services that have become a part of the culture of the community have also contributed to the fact that distance is no longer a concern when selecting where to buy a home.

Another similarity can be seen in the distance from the house to public facilities (Distance3), which negatively affects the price of the house. This research result supports the research by Huang and Hess (2018), which also shows a negative relationship between all the measures of distance to school (elementary, middle, and high schools) and housing values. In other words, the further a house is away from schools, the less value the house will have. Neither the electric power nor land area positively affects housing prices in Denpasar and Jakarta. This result supports Cerin et al. (2014), which suggest that the property market values energy performance.

The building area is essential in determining housing prices in Denpasar but not Jakarta. The more extensive a building is, the higher the price of houses in Denpasar. However, for houses in Jakarta, the area of the building, which also shows the level of the building, does not affect the price; this is due to Jakarta's limited land so that high-rise buildings have become commonplace, in contrast to houses in Denpasar, whose level of the building may not exceed those stipulated by the Balinese custom of Pura. While in Jakarta, the variable number of bedrooms does not affect house prices. The unique thing is that the number of bedrooms hurts house prices in Denpasar because this is due to the characteristics of residents in Denpasar who like to renovate their homes so that they prefer an ample space even though a little more than much space but narrow.

Safety and flooding are not the main pricing concerns in Denpasar; since all Balinese residents have traditional security officers, namely pecalang, in each village, a security system is considered unnecessary. In contrast to Jakarta, which has many flood-prone areas and a high crime rate, in Jakarta, the difference between Regions that have a security system with no security has a positive effect on housing prices. The difference between anti-flood and non-flood areas positively affects housing prices in Jakarta. Property brokers in Jakarta should pay attention to electric power, the extent of Land, Free Flood, Security system availability, and the distance between houses and public facilities to get high housing prices. Property brokers in Denpasar should pay attention to the extent of land, electric power, number of bedrooms, building area, and the distance between houses and public facilities to get high housing prices.

Before making a home purchase transaction, it is better to know and consider the costs involved in a buying and selling transaction, especially the home purchase tax. It is crucial to know how to calculate the home purchase tax so that

later the buyer will not be surprised if there are additional costs beyond the house's value. The following are the costs that can appear on the purchase of a home in Indonesia:

*Cost of making contract of sale.* The initial stage of negotiating settlement begins with making a Sale and Purchase Deed, which states that the seller is willing to release the house at an agreed price to the buyer. The Contract of the sale cost in Indonesia is calculated at 1% of the transaction value. The buyer usually bears the cost of this deed of sale. However, sometimes the cost of the Contract of sale is shared if there is an agreement, especially if the house has a relatively large transaction value.

*Cost to check certificate legality.* This process is critical to find out the certificate legality of the house to be purchased and avoid disputes in the future because of the problematic property. The fee is around Rp. 100,000. It is safer to check the document's validity before making a transaction.

*Certificate transfer fee.* If the buyer buys directly from the homeowner, the buyer must carry out a Name Transfer procedure. If a buyer buys a new house from a developer, there is no need to take care of this. The fee is 2% of the transaction value or determined following local government regulations.

*Land and building rights acquisition fee.* Land and Building Rights Acquisition Fee, also known as BPHTB in Indonesia, is a house purchase tax that is the home buyer's responsibility. This house purchase tax is mandatory and is paid on acquiring land and building rights purchased.

*Value added Tax/VAT.* Value added tax is another home purchase tax that must pay as a home buyer. If the buyer buys property from the developer who is a Taxable Entrepreneur (PKP), then the way to calculate the home purchase tax is to multiply the price of the land by the 10% rate. If the seller is not a PKP or transaction for a second house, the buyer is responsible for depositing VAT directly to the state treasury. The costs incurred in buying and selling houses are sometimes not small. Therefore, the buyer should also take this into account in the budget. Learning how to calculate home purchase taxes is a wise step.

### **Limitations and further study agenda**

Some of the limitations of this research include: first, from this research, property brokers can determine factors that can increase home prices; prospective buyers can determine the reasonable price range of homes. Property Brokers should also consider the culture in a different location when imposing the prices. Different cultures have different values, such as Jakarta cultures often emphasize individualism which focuses on the individual, while Denpasar cultures emphasize collectivism which focuses on conformity to the group. In order to provide the right products and services at the correct prices, property brokers should understand the essential cultural differences between their customers (Barratt, 1989). Second, the different cultural backgrounds can influence decision-making (Worzala & Newell, 1997). A similar study can be done in big cities other than Jakarta and Denpasar. Further research can be done by examining other factors in home-buying decisions, such as exposure and information processing (Sachdeva, 2020) and sustainability factors (Judge, 2019). In addition to the Hedonic Price

Method, other study methodologies include Machine Learning and the Random Forest Approach.

## Conclusion

This study aims to determine the dominant factors influencing the housing prices in Jakarta as the Capital City of Indonesia and Denpasar as a Tourism Centre on Bali Island, Indonesia. This study uses multiple linear regression tests, and testing is performed on data from two cities. From the city of Denpasar, it was found that the factors that affected the price of houses in the city were the extent of land, electricity, number of bedrooms, building area, and the distance between the house and public facilities. From the city of Jakarta, it was found that the factors that affected the price of houses in the city were electric power, land area, free flooding, security system availability, and the distance between the house and public facilities.

## References

- Alonso, W. (2013). *In Location and land use*. Harvard university press.
- Barratt, A. (1989). A Different Culture–The implication management development. *Journal of European Industrial Training*, 13, 28–31. <https://doi.org/10.1108/EUM0000000000195>
- BPS. (2022). Area and Geographic Location of Bali Island and Its Regency/Municipality. Retrieved July 5, 2022, from Badan Pusat Statistik website: <https://bali.bps.go.id/statictable/2018/04/10/47/luas-wilayah-dan-letak-geografis-pulau-bali-dan-kabupaten-kota.html>
- Cerin, P., Hassel, L., G., & Semenova, N. (2014). Energy Performance and Housing Prices. Sustainable Development. Published online in Wiley Online Library. Website: [https://www.researchgate.net/publication/262773553\\_Energy\\_Performance\\_and\\_Housing\\_Prices](https://www.researchgate.net/publication/262773553_Energy_Performance_and_Housing_Prices).
- Goodhart, C., & Hofmann, B. (2007). *House prices and the macroeconomy: Implications for banking and price stability*. OUP Oxford.
- Heikkila, E., Gordon, P., Kim, J. I., Peiser, R. B., Richardson, H. W., & Dale-Johnson, D. (1989). What happened to the CBD-distance gradient? Land values in a policentric City. *Environment & Planning A*, 21(2), 221–232.
- Herath, S. (2021). Elevating the Value of Urban Location: A Consumer Preference-Based Approach to Valuing Local Amenity Provision. *Land*, 10(11), 1226. <https://doi.org/10.3390/land10111226>
- Hong, J., Choi, H. & Kim, W. (2020). A House Price Valuation Based On The Random Forest Approach: The Mass Appraisal Of Residential Property. *International Journal of Strategic Property Management*, Vol 24(3), 140-152. <https://doi.org/10.3846/ijspm.2020.11544>.
- Huang, P., & Hess, T. (2018). Impact of Distance to School on Housing Price: Evidence from a Quantile Regression. *The Empirical Economics Letters*, 17(2).
- Jakarta Opendata. (2022). Data mengenai sebaran Luas Wilayah dan Kepadatan di Provinsi DKI Jakarta per Kelurahan. Retrieved July 5, 2019, from Dinas Komunikasi, Informatika, dan Statistik Provinsi DKI Jakarta website: <http://data.jakarta.go.id/dataset/luas-wilayah-dan-kepadatan-provinsi-dki-jakarta-tahun-2015/resource/cabba6c1-78d3-48a7-a2fb-045b343db1a0>
- Judge, M., Warren-Myers, G., & Paladino, A. (2019). Using the theory of planned behavior to predict intentions to purchase sustainable housing. *Journal of*

- cleaner production*, 215, 259-267. Using the theory of planned behavior to predict intentions to purchase sustainable housing. *Journal of cleaner production*, 215, 259-267. <https://doi.org/10.1016/j.jclepro.2019.01.029>
- Kotler, P., & Keller, K. L. (2012). *Marketing Management* (14th ed.). PT. Indeks Kelompok Gramedia.
- Lancaster, K. J. (1966). A new approach to consumer theory. *Journal of political economy*, 74(2), 132-157. <https://doi.org/10.1086/259131>
- Li, L. (2010). Housing Choice in an Affluent Shanghai–Decision. *Modern Economy*, 9–17.
- MacLennan, D. (2002). *The Review of Scotland's Cities*. Her Majesty's Stationery Office.
- Mills, T. (2000, October). Customer care – are you doing enough? HouseBuilder. <https://www.strategydriven.com/2018/07/12/customer-service-are-you-doing-enough/>
- Nur Azizah, E., Cholissodin, I., & Firdaus Mahmudy, W. (2015). Optimasi Fungsi Keanggotaan Fuzzy Tsukamoto Menggunakan Algoritma Genetika Untuk Penentuan Harga Jual Rumah. *Journal of Environmental Engineering and Sustainable Technology*, 2(2), 79–82. <https://doi.org/10.21776/ub.jeest.2015.002.02.3>
- Ozaki, R. (2002). Housing as a Reflection of Culture: Privatised Living and Privacy in England and Japan. *Housing Studies*, 17, 209–227.
- Putera, A. (2019). Pariwisata Bali Sumbang 40 Persen Devisa Pariwisata Nasional. Retrieved from Bali Post website: <http://www.balipost.com/news/2019/08/22/84778/Pariwisata-Bali-Sumbang-40-Persen...html>
- Rosen, S. (1974). Hedonic prices and implicit markets: product differentiation in pure competition. *Journal of political economy*, 82(1), 34-55. <https://doi.org/10.1086/260169>
- Sachdeva, R. (2020). An empirical investigation of factors influencing young Indian consumer decision making. *Journal of Asia-Pacific Business*, 21(3), 207-226. <https://doi.org/10.1080/10599231.2020.1783974>
- Salleh, N. A., Zoher, S. A., Mahayuddin, S. A., & Abdul, Y. (2015). Environmental Settings in the Era of Urban Regeneration Influencing Factors of Property Buyer in Hillside Residential Development. *Procedia - Social and Behavioral Sciences*, 170, 586 – 595.
- Thaker, H., & Sakaran, K. (2016). Prioritization of Key Attributes Influencing the Decision to Purchase a Residential Property in Malaysia. *International Journal of Housing Markets and Analysis*, 9(4), 446–467. <https://doi.org/10.1108/IJHMA-09-2015-0052>
- Usman, H., Lizam, M. & Burhan, B. (2021). A priori spatial segmentation of commercial property market using hedonic price modelling. *Real Estate Management and Valuation*, 29(2), 16-28.
- Wen, H., Bu, X., & Qin, Z. (2014). Spatial effect of lake landscape on housing price: A case study of the West Lake in Hangzhou, China. *Habitat International*, 44, 31–40. <https://doi.org/10.1016/j.habitatint.2014.05.001>
- Wen, H., & Goodman, A. C. (2013). Relationship between urban land price and housing price: Evidence from 21 provincial capitals in China. *Habitat International*, 40, 9–17. <https://doi.org/10.1016/j.habitatint.2013.01.004>
- Worldometers. (2022a). Indonesia Population. Retrieved July 5, 2022, from <https://www.worldometers.info/world-population/indonesia-population/>
- Worldometers. (2022b). World Population. Retrieved July 5, 2022 from <https://www.worldometers.info/world-population/>
- Worldpopulationreview. (2022). Indonesia Population. Retrieved July 5, 2022 from <http://worldpopulationreview.com/countries/indonesia-population/>
- Worzala, E. M., & Newell, G. (1997). International Real Estate: A Review of Strategic Investment Issues. *Journal of Real Estate Portfolio Management*, 3(2), 87–95

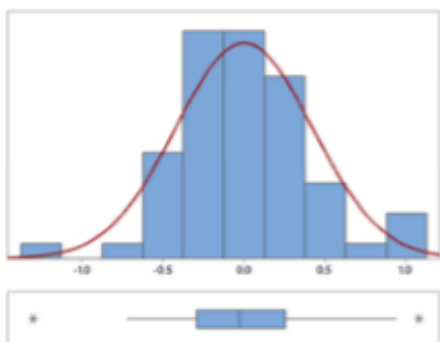
**Appendix 1.** *Statistics Descriptif (Denpasar and Surabaya)*

Variable	DENPASAR				JAKARTA			
	Mean	StDev	Min	Max	Mean	StDev	Min	Max
Price (billion)	2.17	1.75	.49	9.00	3.35	2.37	0.24	9
Distance 1 (km)	1.89	1.93	.20	8.50	4.58	7.42	0.10	30
Distance 2 (km)	5.03	2.38	1.00	9.40	6.13	5.28	0.20	30
Distance 3 (km)	1.42	1.25	.20	6.40	1.54	1.72	0.12	7
electrical (kwh)	1807.00	1750.00	1300.00	11000.00	3285.00	1585.00	1300.00	7700
Land (m <sup>2</sup> )	169.60	127.10	60.00	692.00	159.40	95.80	8.00	415
Building (m <sup>2</sup> )	157.80	91.10	36.00	450.00	204.50	156.70	22.00	750



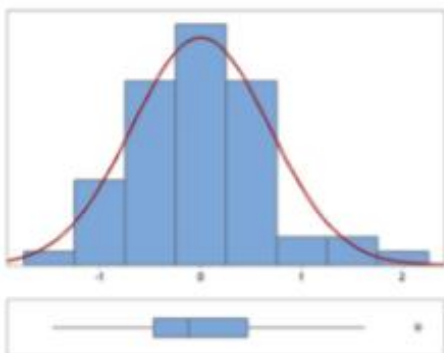
**Appendix 2. Normality Test of Residual Value**

**DENPASAR: NORMALITY TEST OF RESIDUAL**



Anderson-Darling Normality Test	
A-Squared	0.42
P-Value	0.314
Mean	-0.00000
StDev	0.42175
Variance	0.17787
Skewness	0.99809
Kurtosis	1.09718
N	60
Minimum	-1.30502
1st Quartile	-0.29229
Median	-0.03001
3rd Quartile	0.25506
Maximum	1.08027
95% Confidence Interval for Mean	
	-0.10895 0.10895
95% Confidence Interval for Median	
	-0.14275 0.12225
95% Confidence Interval for StDev	
	0.35749 0.51439

**JAKARTA: NORMALITY TEST OF RESIDUAL**



Anderson-Darling Normality Test	
A-Squared	0.61
P-Value	0.107
Mean	-0.00000
StDev	0.68223
Variance	0.46544
Skewness	0.76751
Kurtosis	1.11264
N	55
Minimum	-1.46425
1st Quartile	-0.46689
Median	-0.11858
3rd Quartile	0.46457
Maximum	2.15179
95% Confidence Interval for Mean	
	-0.18443 0.18443
95% Confidence Interval for Median	
	-0.25719 0.08471
95% Confidence Interval for StDev	
	0.57434 0.84040

**Appendix 3. Regression Equation for House Data in Denpasar**

Equation	Flood	Security	Equations (Denpasar Houses Data)
1	0	0	Price (Billion) = 0.262 + 0.0637 Distance 1 (km) - 0.0171 Distance 2 (km) - 0.1303 Distance 3 (km) + 0.000334 Electrical (kwh) + 0.007623 Land (m <sup>2</sup> ) + 0.00424 Building (m <sup>2</sup> ) - 0.3563 BedRoom + 0.1480 Bathroom
2	0	1	Price (Billion) = 0.571 + 0.0637 Distance 1 (km) - 0.0171 Distance 2 (km) - 0.1303 Distance 3 (km) + 0.000334 Electrical (kwh) + 0.007623 Land (m <sup>2</sup> ) + 0.00424 Building (m <sup>2</sup> ) - 0.3563 BedRoom + 0.1480 Bathroom
3	1	0	Price (Billion) = 0.208 + 0.0637 Distance 1 (km) - 0.0171 Distance 2 (km) - 0.1303 Distance 3 (km) + 0.000334 Electrical (kwh) + 0.007623 Land (m <sup>2</sup> ) + 0.00424 Building (m <sup>2</sup> ) - 0.3563 BedRoom + 0.1480 Bathroom
4	1	1	Price (Billion) = 0.516 + 0.0637 Distance 1 (km) - 0.0171 Distance 2 (km) - 0.1303 Distance 3 (km) + 0.000334 Electrical (kwh) + 0.007623 Land (m <sup>2</sup> ) + 0.00424 Building (m <sup>2</sup> ) - 0.3563 BedRoom + 0.1480 Bathroom

**Appendix 4.** Regression Equation for House Data in Denpasar

Term	Coef	SE Coef	T-value	P-Value	VIF
Constant	.26	.35	0.75	.45	
Distance 1 (km)	.06	.04	1.49	.14	1.90
Distance 2 (km)	-.01	.03	-0.52	.60	1.68
Distance 3 (km)	-.13	.06	-2.14	.03	1.60
electrical (kwh)	.00	.00	5.74	.00	2.86
Land (m <sup>2</sup> )	.00	.00	8.19	.00	3.85
Building (m <sup>2</sup> )	.00	.00	2.62	.01	5.99
BedRoom	-.35	.09	-3.71	.00	3.02
BathRoom	.14	.08	1.70	.09	2.93
Flood	-.05	.30	-0.18	.85	1.21
Security	.30	.16	1.83	.07	1.55

**Appendix 5.** *Regression Equation for House Data in Jakarta*

Equation	Flood	Security	Equations (Denpasar Houses Data)
1	0	0	Price (Billion) = 0.575 - 0.0290 Distance 1 (km) - 0.0195 Distance 2 (km) - 0.1668 Distance 3 (km) + 0.000426 Electrical (kwh) + 0.00728 Land (m <sup>2</sup> ) - 0.00118 Building (m <sup>2</sup> ) - 0.151 BedRoom + 0.185 Bathroom
2	0	1	Price (Billion) = 1.763 - 0.0290 Distance 1 (km) - 0.0195 Distance 2 (km) - 0.1668 Distance 3 (km) + 0.000426 Electrical (kwh) + 0.00728 Land (m <sup>2</sup> ) - 0.00118 Building (m <sup>2</sup> ) - 0.151 BedRoom + 0.185 Bathroom
3	1	0	Price (Billion) = 1.659 - 0.0290 Distance 1 (km) - 0.0195 Distance 2 (km) - 0.1668 Distance 3 (km) + 0.000426 Electrical (kwh) + 0.00728 Land (m <sup>2</sup> ) - 0.00118 Building (m <sup>2</sup> ) - 0.151 BedRoom + 0.185 Bathroom
4	1	1	Price (Billion) = 2.847 - 0.0290 Distance 1 (km) - 0.0195 Distance 2 (km) - 0.1668 Distance 3 (km) + 0.000426 Electrical (kwh) + 0.00728 Land (m <sup>2</sup> ) - 0.00118 Building (m <sup>2</sup> ) - 0.151 BedRoom + 0.185 Bathroom

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