

Decision to Residential Purchasing in Denpasar Before and During the Covid-19 Pandemic

Anissa Maria Hidayati¹, Gusti Ayu Putu Candra Dharmayanti¹, Charlie Adi Mertha¹

Corresponding Email: candra_dharmayanti@unud.ac.id

¹Department of Civil Engineering, Udayana University, Indonesia

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Abstract

Indonesia's economic growth from 2018 to 2022 is volatile; the residential property sector is projected to follow macroeconomic trends. Based on interviews with members of Real Estate Indonesia in the Bali region, sales of the property sector, especially large-type residential housing in Denpasar for the 2018-2019 period, experienced growth but not significantly. In contrast to the 2020-2022 period, it experienced significant growth amid the COVID-19 conditions. This phenomenon was not spared from the role of the developers, who carried out a good strategy regarding consumer behavior amid the economic difficulties at that time so that they were able to boost sales of large-type residential dwellings in Denpasar. This study analyzes the decisions of residential purchasing in Denpasar before and during the COVID-19 pandemic. So, there are two groups of samples for two periods, namely the years 2018-2019 and 2020-2022. The selected samples include 87 respondents of consumers and 60 respondents of developers. Data were analyzed using Smart-PLS using the Multi Group Analysis feature to examine the differences in the analysis results for the two sample groups. Developers were involved as a sample because they were assumed to be able to recognize the preferences of consumers in deciding residential purchasing. The results show a similarity of factors before and during the COVID-19 pandemic, namely promotion and the developer's image, significantly influencing residential buying decisions. Meanwhile, the factor that distinguished the two sample groups was the price factor, which significantly influenced the decision to buy housing before the pandemic, while environmental factors significantly affected the decision to buy housing during the pandemic.

Keywords: Residential Purchasing Decisions, Covid, Developer, Consumer

Introduction

Bali, whose economy depends on tourism, has been badly affected by COVID-19 (Maharani, 2021). Weak tourism growth also impacts the retail industry (Iswahyudi, 2016). The decline in tourist visits has impacted micro, small, and medium enterprises (Saidi et al., 2017). Based on interviews with members of Real Estate Indonesia in the Bali region, sales of the property sector, especially large-type residential housing in Denpasar for the 2018-2019 period, experienced growth but not significantly. In contrast to the 2020-2022 period, sales of the property sector, especially large-type residential housing in Denpasar, experienced significant growth amid the COVID-19 pandemic. This phenomenon was not spared from the role of the developers, who carried out a good strategy regarding consumer behavior amid the economic difficulties at that time to increase sales of large-type residential dwellings in Denpasar. This research analyzed residential purchasing decisions in Denpasar before and during the COVID-19 pandemic. Thus, two sample groups are grouped based on the period before the 2018-2019 covid pandemic and during the 2020-2022 covid pandemic. The participation of developers as a sample is because

developers are considered to understand consumer behavior in making residential buying decisions. The division of these two periods aims to determine consumer behavior before and during the pandemic.

According to Tjiptono (2008), consumer behavior is the actions of individuals directly involved in obtaining, using, and determining products and services, including decision-making processes that precede and follow these actions. Mangkunegara (1988) stated that consumer behavior is actions taken by individuals, groups, or organizations in the decision-making process to obtain economic goods or services that the environment can influence. The development of the marketing concept now places the consumer as the central point of attention. Understanding consumer and customer behavior is complex. Customers may state their needs and desires. Consumer behavior needs to be studied to determine the characteristics of consumers in buying a product. Kotler and Keller (2009) suggested that purchasing decisions are consumer preferences for brands in the set of choices and consumer intentions to buy the most preferred brand. There are several stages in the decision-making process by consumers, as shown in Figure 1 (Setiadi, 2019).

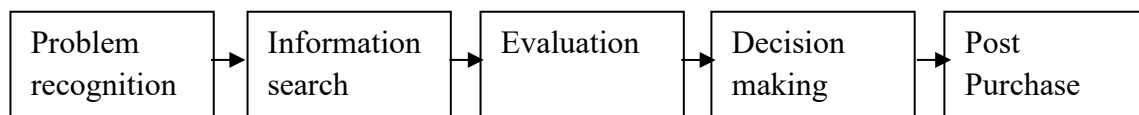


Figure 1. The process of making consumer purchasing decisions

Source: Setiadi (2019)

In deciding to buy a product, consumers generally consider various things. Consumers go through stages in this decision-making process, including problem recognition activities, information search, evaluation, and decision-making. The literature indicates eight factors that influence the decision of residential purchasing, namely location, product, price, promotion, facility, developer reputation, social and environmental (Aljufri et al., 2021; Anthony et al., 2018; Fatmawati, 2020; Ghoni & Bodroastuti, 2012; Hanungsari, 2019; Maulana et al., 2021; Rakhmanita & Vidada, 2017; Setiawan et al., 2018; Suryawardana & Yani, 2017; Wardhani et al., 2016; Wariki et al., 2015; Wicaksana & Baldah, 2021). The indicator that measures all these factors is presented in Table 1.

Table 1. Indicators of factors that influence consumers on residential purchasing decisions

X.1	Location (X.1)		X2	Product (X.2)
X1.1	Near city center		X2.1	Building specifications
X1.2	Near work		X2.2	Building concept
X1.3	Near public facilities		X2.3	Building design
X1.4	Near the highway		X2.4	The duration of the maintenance period
X1.5	Near entertainment facilities		X2.5	Product Warranty
X.3	Price (X.3)		X4	Promotion (X.4)
X3.1	Purchasing power		X4.1	Advertising frequency
X3.2	Resale price		X4.2	Price discount offer
X3.3	Installment capability		X4.3	Bonus given
X3.4	Price below market		X4.4	Special repurchase promotion
X3.5	Many choices of payment methods			
X3.6	Term of payment			

X5	Facilities (X.5)		X6	Developer (X.6)
X5.1	Security facility		X6.1	Developer experience
X5.2	Basic facilities (Electricity and Water)		X6.2	Trust in developers
X5.3	Public facilities (parks and open spaces)		X6.3	Developer image
X5.4	Additional facilities (Wi-Fi)		X6.4	Building completion time
X7	Social Factors (X.7)		X8	Environment (X.8)
X7.1	Influence of friends		X8.1	beautiful environment
X7.2	Family influence		X8.2	Safe environment
X7.3	The influence of social status		X8.3	Free flood
X7.4	The influence of lifestyle			
X7.5	Special needs			
Y1	Residential Purchase Decision (Y.1)			
Y1.1	There is an urgent need.		Y1.5	Doing business at the residence
Y1.2	There is a long-term need		Y1.6	There is a desire to be donated
Y1.3	Short-term investment desire		Y1.7	Make repeat purchases
Y1.4	Long-term investment desire			

Source: Aljufri et al. (2021); Anthony et al. (2018); Fatmawati (2020); Ghoni & Bodroastuti (2012); Hanungsari (2019); Maulana et al. (2021); Rakhmanita & Vidada (2017); Setiawan et al. (2018); Suryawardana & Yani (2017); Wardhani et al. (2016); Wariki et al. (2015); Wicaksana & Baldah (2021).

Table 1 displays the factors that influence residential buying decisions, which in this study are independent variables with code X and indicators that measure them. Meanwhile, the residential purchase decision (as the dependent variable, coded as Y) is measured by seven indicators includes there is an urgent need, there is a short-term investment desire, there is a long-term investment desire, doing business at the residence, there is a desire to be donated, make repeat purchases (Ghoni & Bodroastuti, 2012; Hanungsari, 2019; Rakhmanita & Vidada, 2017; Wardhani et al., 2016; Wicaksana & Baldah, 2021)

Methods

Determination of the number of samples

This study uses simple random sampling, namely sampling, where each member of the population has the same opportunity to become a member of the sample. The population of this study is all consumers who decide to purchase large residential dwellings in Denpasar from 2018 to 2022. Eight hundred twenty-five (825) consumers decided to purchase large residential dwellings in Denpasar. Referring to Yount's table (1999) in Arikunto (2006) presented in Table 2, the total population of consumers in this research is 825 people, so the required number of samples is at least 83 samples (10%).

Table 2 Determination of the number of samples

Population's size	Sample size
0 – 100	100%
101 – 1000	10%
1001 – 5000	5%
5001 – 10000	3%
> 10000	1%

Source: Arikunto (2006)

The developer population size is determined based on sales of large-type residential dwellings in Denpasar from 2018 to 2022, which includes ten developers. The sample of developers includes company owners/developers and two heads of marketing for each company who are considered capable of explaining consumer behavior in that period. The sample selection was based on interviews with several developers, resulting in 30 samples for the developer's part. Therefore, the sample for this research includes a minimum of 30 samples from housing developers and 83 samples from consumers/homebuyers.

Multigroup SmartPLS Analysis

Multi-group analysis using SmartPLS allows multi-sample or multi-group analysis to be performed simultaneously. SmartPLS is a structural equation modeling (SEM) software that allows a simulant multivariate and multi-group analysis. Three approaches were used to perform multi-group analysis, namely the approach by Keil et al. (2000) by estimating model parameters for each group and using the standard error obtained from the bootstrapping procedure; this method is called the parametric approach. The second approach is by using a randomization or permutation test procedure. The third technique is a non-parametric procedure introduced by Henseler (2007) that does not require distributional assumptions.

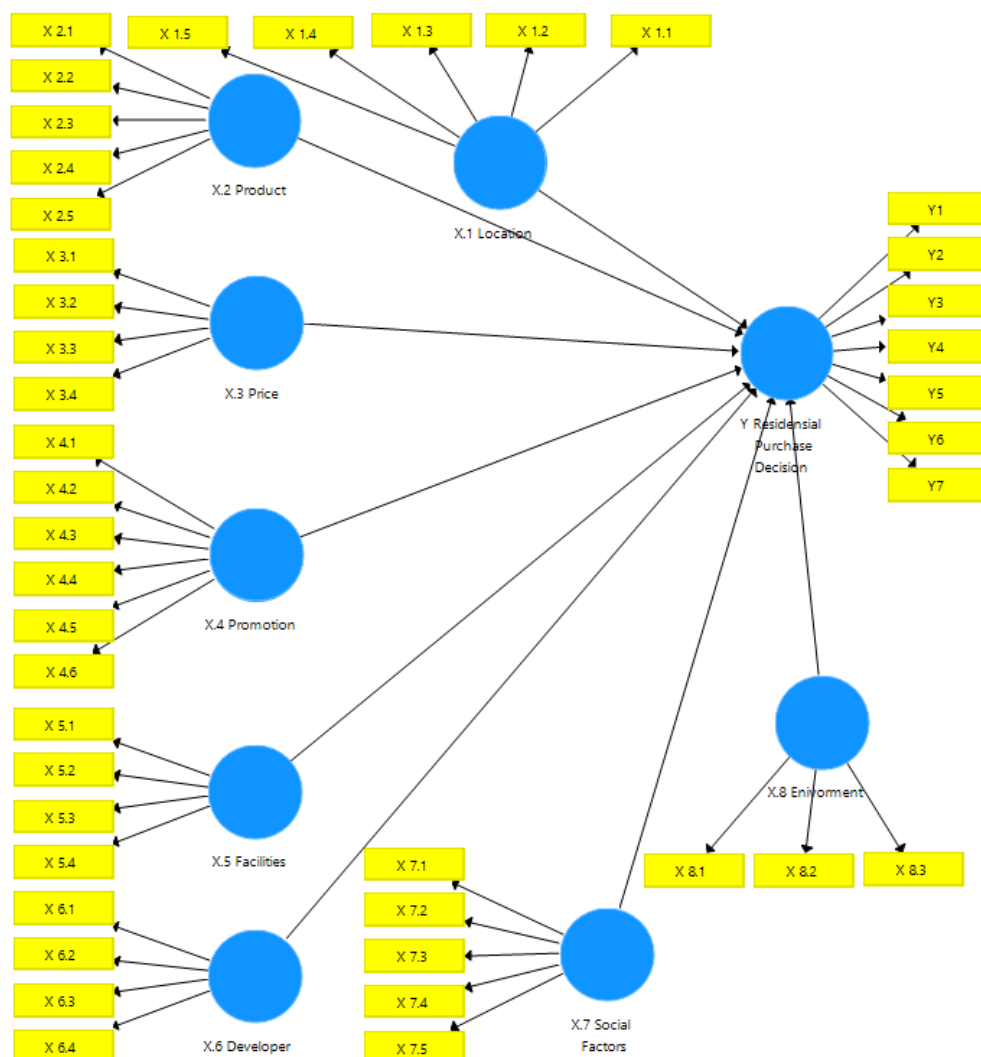


Figure 2. The Research Model in SmartPLS Application

The research model presented in Figure 2 was run in the SmartPLS application. This model depicts the relationship between 8 factors (independent variables) that influence the residential purchasing decisions (independent variable). This model was run simultaneously for the two groups of samples taken from two groups of periods, i.e., the years 2018-2019 and 2020-2022, to represent the period before and during the COVID-19 pandemic.

Results and Discussion

Analysis of residential purchasing decisions in Denpasar for the period 2018 to 2022 was carried out using SmartPLS, which consists of two sub-models in this analysis, namely analysis of indicator testing (outer models), which aims to describe the relationship between latent variables and their indicators, and analysis of hypothesis testing between variables (inner models) aims to analyze the relationship between latent variables or constructs.

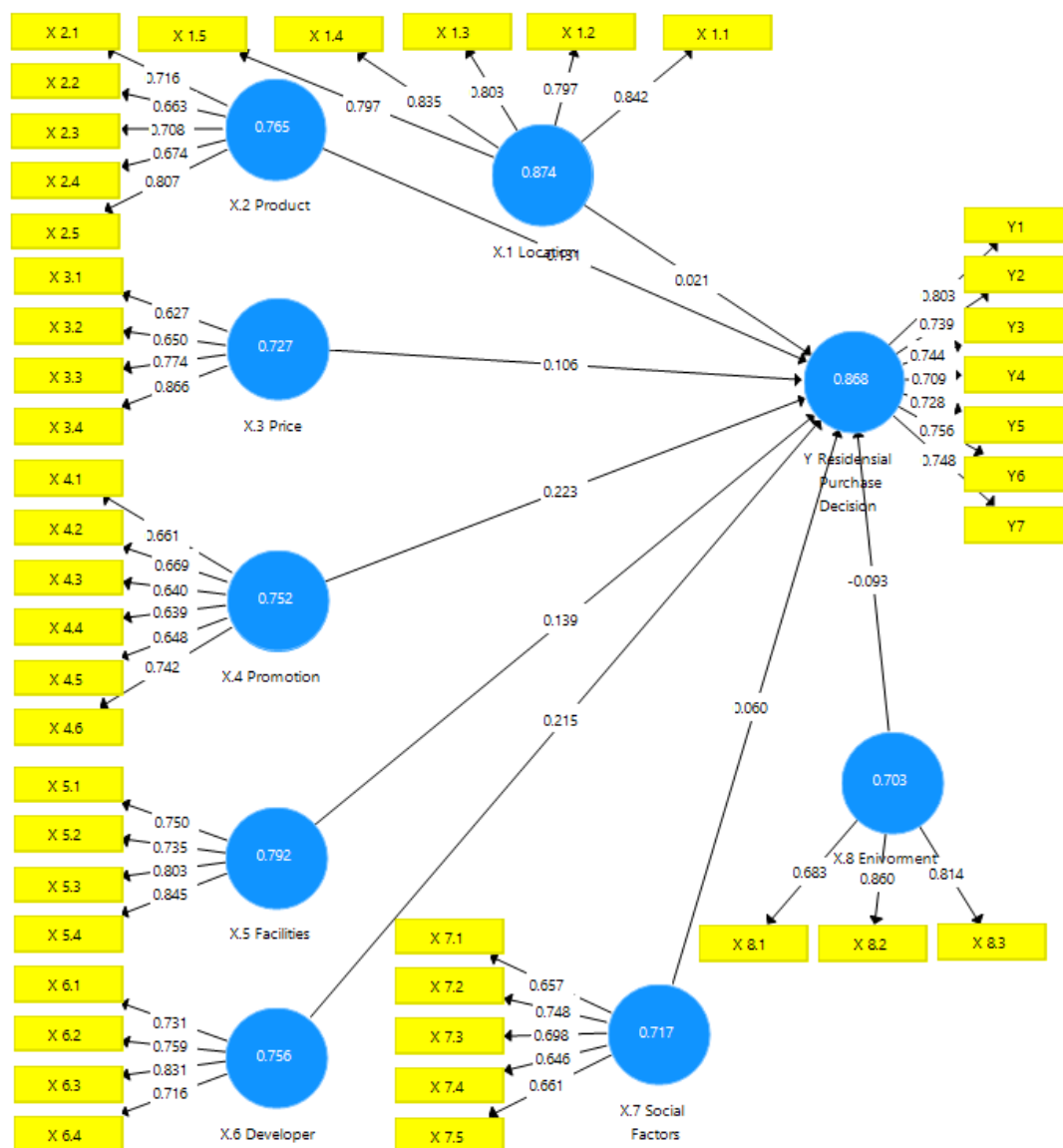


Figure 3. Output of the Algorithm calculation of SmartPLS

The analysis of construct reliability and validity, as depicted in **Error! Reference source not found.**, suggests the value of the outer loadings for each latent variable and shows the correlation value between the indicators and the latent variable.

Table 3. Construct Validity and Reliability

Variables	Cronbach's Alpha	Reliability Composit	Average Varians Extracted (AVE)
X.1 Location	0.87	0.91	0.66
X.2 Product	0.77	0.84	0.51
X.3 Price	0.73	0.82	0.54
X.4 Promotion	0.75	0.83	0.51
X.5 Facilities	0.79	0.86	0.62
X.6 Developer	0.73	0.85	0.58
X.7 Social Factors	0.72	0.81	0.57
X.8 Environment	0.71	0.83	0.62
Y Residential Purchase Decision	0.87	0.89	0.55

Table 3 shows that all variables are declared to fulfill reliability because the composite reliability and Cronbach's alpha values are above 0.7. Each construct's AVE (Average Variance Extracted) value is higher than 0.5, indicating solid discriminant validity, demonstrating that the model is fit. This model produces an R-Square Model of 0.25 or 25%, meaning that the magnitude of the influence of factors influencing consumers is 25%. At the same time, the rest is influenced by other variables that were not examined further.

The result of multi-group analysis for the group sample before COVID 19 period (2018-2019)

Error! Reference source not found. depicts the result of the hypothesis test using SmartPLS (v 3.2.9) involving bootstrapping calculations for the group of samples of the period before COVID-19**Error! Reference source not found.**

Table 4. Path coefficient for the group sample of before COVID 19 period (2018-2019)

Hypothesis test of X to Y	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
X1 (Location) → Y	0.12	0.12	0.18	0.68	0.25
X2 (Product) → Y	-0.22	-0.10	0.20	1.08	0.14
X3 (Price) → Y	0.29	0.25	0.20	1.44	0.08
X4 (Promotion) → Y	0.23	0.26	0.17	1.36	0.09
X5 (Facilities) → Y	0.06	0.06	0.18	0.36	0.36
X6 (Developer) → Y	0.07	0.00	0.18	0.40	0.02
X7 (Social Factors) → Y	0.04	0.08	0.19	0.22	0.41
X8 (Environment) → Y	-0.06	-0.06	0.19	0.32	0.37

Y= Residential Purchase Decision

As seen in **Error! Reference source not found.**, three variables with a value P value lower than 10% indicate the significant variables/factors influencing residential purchasing decisions. These variables include Promotion (X4) with a P value of 0.09 (measured by indicators: advertising frequency, discount offers, bonuses given, special repurchase promotions), Price (X3) with a P value of 0.08 (measured by indicators: purchasing power, resale prices, installment

capabilities, below market prices, number of choice of payment method, and payment term) and Developer (X6) with P value of 0.02 (measured by indicators: developer experience, trust in developers, developer image, and duration of building completion).

The result of multi-group analysis for the group sample during the COVID-19 period (2018-2019)

Table 5 presents the result of the hypothesis test using SmartPLS (v 3.2.9) involving bootstrapping calculations for the group of samples during COVID-19Table 5. It shows three variables with P values lower than 10%, meaning they significantly influence residential purchasing decisions. These variables cover Promotion (X4) with a P value of 0.07 (measured by indicators: advertising frequency, discount offers, bonuses given, special repurchase promotions), Developer (X6) with a P value of 0.02 (measured by indicators: developer experience, trust in developers, developer image, and duration of building completion) and Environment (X8) with P value of 0.09 (measured by indicators: beautiful environment, safe environment, and free flood).

Table 5. Path coefficient for the group sample during COVID-19 period (2020-2022)

Hypothesis test of variable X to Y	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
X1 (Location) → Y	-0.16	-0.13	0.15	1.10	0.14
X2 (Product) → Y	0.14	0.13	0.16	0.87	0.19
X3 (Price) → Y	-0.05	-0.04	0.16	0.34	0.37
X4 (Promotion) → Y	0.28	0.27	0.19	1.47	0.07
X5 (Facilities) → Y	0.15	0.16	0.21	0.72	0.24
X6 (Developer) → Y	0.27	0.27	0.13	2.10	0.02
X7 (Social Factors) → Y	0.18	0.19	0.16	1.13	0.13
X8 (Environment) → Y	-0.23	-0.24	0.18	1.32	0.09

The results of the study provide valuable insights into the factors influencing residential purchasing decisions in Denpasar before and during the COVID-19 pandemic. When delving into the specific outcomes, it becomes evident that consumer behavior exhibited some differences before and during the COVID-19 pandemic.

The decision to purchase housing in Denpasar before the COVID-19 pandemic era suggested that the price as one factor influencing purchasing decisions. However, during the COVID-19 pandemic, price is no longer significantly influencing residential purchasing decisions. Further confirmation made through interviews with developers stated that it is in line with the actual situation that residential purchases were dominated by investors who want to take advantage of this momentum (during Covid 19 pandemic). In addition, the environment became one of the significant factors influencing purchasing decisions during the COVID-19 pandemic. Providing a safe environment for residents is a selling point during the pandemic. The shifting significance of price and the emergence of environmental concerns during the pandemic provide new insights into how external events can reshape consumer priorities. The research findings shed light on the changes in consumer behavior and preferences due to the pandemic's economic impact.

Consumer behavior tends to be similar, related to factors influencing residential purchase decisions in Denpasar before and during the COVID-19 pandemic, i.e., variables of promotion and developer. Based on in-depth interviews with the developer, the variable of promotion and developer are the keys to the developer's success. Despite the challenging economic

circumstances caused by the pandemic, promotional factors such as advertising frequency, price discount offers, bonuses, and special repurchase promotions remained influential during both periods. This could be attributed to the heightened competition within the real estate market during the pandemic, where developers might have resorted to offering attractive promotions to entice potential buyers. The fact that this influence persisted suggests the resilience of marketing strategies even in turbulent times.

During the pandemic, consumers paid more attention to the image of the developer because consumers doubted the developer's ability to complete the residence. In comparison to earlier studies, this finding aligned with previous study to a considerable extent, as it was also suggested that residential purchasing decisions were significantly influenced by price perceptions and the developer's image (Dewi et al., 2017; Munawir & Maskupah, 2020; Safitri et al., 2019). The developer's image and the role of promotional activities reaffirm the enduring nature of these factors in residential purchasing decisions.

Conclusion

The findings highlighted changes in consumer behavior and preferences related to residential purchasing decisions before and during the COVID-19 pandemic. Factors that influenced the pre-COVID-19 consumer groups in making residential purchase decisions include promotional variables (advertising frequency, discount offers, bonuses provided, special promotions for repeat purchases), price variables (purchasing power, resale prices, installment capabilities, prices below market, many choices of payment methods, and payment terms) and developer variables (developer experience, trust in developers, developer image, and duration of building completion). While factors that influenced group consumers during the COVID-19 era in making residential purchase decisions included environmental variables (beautiful environment, safe environment, and flood-free), promotional variables (advertising frequency, price discount offers, bonuses given, special repurchase promotions), and developer variables (developer experience, trust in the developer, developer image, and duration of building completion).

There are similarities in the factors influencing consumers in purchasing residential decisions in Denpasar before and during the COVID-19 pandemic, namely the promotion and developer variables. The factors that distinguished the two sample groups were variables of price and environment. Accordingly, it is recommended that developers focus on strategies that effectively relate to developer performance, promotions and prices, and creating attractive environmental housing, as they are proven to support developers surviving during the pandemic.

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