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Identifying how the time on the market affects the selling price: a case study of residential properties in Paphos (Cyprus) urban area

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Abstract

Purpose – The purpose of this study is to investigate how the degree of overpricing (DOP) and other variables are associated with the time on the market (TOM) and the final selling price (SP) for residential properties in the Paphos urban area.

Design/methodology/approach – The hedonic pricing model was used to examine the association of TOM and SP with various factors. The association of the independent variable of DOP and other independent variables with the two dependent variables of TOM and SP were investigated via ordinary least squares (OLS) regression models. In the first set of models the dependent variable was TOM and in the second set of models the dependent variable was SP. A sample of $N = 538$ completed transactions from Q1 2008 to Q2 2019 was used to estimate the optimum DOP that a seller must apply on the current market value of a property in order to achieve highest SP price in the shortest TOM.

Findings – The results of this study also suggest that the degree of overpricing in thin and less transparent markets is higher than that in transparent markets with high property transaction volumes. In mature markets like the USA and the UK where the actual sold prices are published, the DOP is around 1.5% which is much lower than the 11% DOP identified in this study.

Practical implications – It was found that buyers are willing to pay more for the same house in a bigger plot than a bigger house in the same plot. The outcome is that smaller houses sell faster at a higher price per square meter than larger houses. Smaller houses are more affordable than larger houses.

Social implications – There is a large pool of buyers for smaller houses than bigger houses. Higher demand for smaller houses results in a higher price per square meter for smaller houses than the price per square meter for bigger houses. Respectively the TOM for smaller houses is shorter than the TOM for bigger houses.

Originality/value – The database used is unique, from an estate agent located in Paphos that managed to sell more than 27,000 properties in 20 years. This data set is the most accurate information for Cyprus' property transactions.

Keywords Degree of overpricing, Time on the market, Asking price, Selling price, Thin market, Correlational analysis, Multiple regression

Paper type Case study

1. Introduction

Paphos is a coastal city in southwest Cyprus and the capital of Paphos District. Paphos was included on the UNESCO World Heritage List for its ancient architecture, mosaics and ancient religious importance and was also selected as a European Capital of Culture for 2017 along with AArhus. The economy of Paphos heavily depends on tourism and real estate and there are several resorts. There is a great interest for residential properties from foreign buyers and approximately 40% of the property transactions in Paphos are made by expats.

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Property sellers face a dilemma when determining the asking price of a property for sale. If a seller prices his home too low, he will sell it in the shortest time, but he risks selling the property below market value and losing money. If a seller prices his home too high, it will take a longer time to sell, and he is at risk of stigmatizing the listing for staying in the market for too long. Practical experience shows that after an excessively long time on the market (TOM), buyers' interest drops dramatically and this affects the final selling price (SP) negatively. Also, the longer the TOM results in a higher opportunity cost for the seller.

The choice of the initial listing price is not necessarily final. Usually, property sellers will set an initial asking price, then watch the market reaction and adjust the listing price in response to buyers' demand (Knight, 2002). Not all sellers follow the same pricing strategies. The main determinant of a seller's pricing strategy is the holding cost of the property (Glower *et al.*, 1998).

Most studies regarding the relation of asking price and TOM do not take into account the initial listing price of the listing. While it is common in real estate for a seller to start with an initial asking price and change it later based on the response of the market, in most studies found in literature, there is no mention about the listing price changes. Research studies that do not examine price changes during the marketing period have an inherent weakness in explaining the relationship between price and TOM. This may be reason for the conflicting findings regarding the relationship among asking price, degree of overpricing (DOP) and TOM (Knight, 2002).

The choice of asking price must be such that (1) it will maximize the present value of the net sale price of the property and (2) minimize the opportunity cost of the TOM. Market value is in constant change. Listing a property for sale at the appraised value does not guarantee that it will yield the highest net present value. Appraised value based on comparable sales has an inherent weakness because it is based on past transactions. It is a snapshot of the comparable historical transactions. As a result, there is always a time lag between the real market value and the appraised value.

Even the most recent transactions are still events that occurred in the past. However, the sale of a property will happen on a future date. We assume that the maximum SP is the price that is equal or higher to the market value at the date of sale. The question is how to determine a listing price that will secure the maximum SP in the shortest amount of time.

If the listing price equals the appraised value, it may not guarantee either the maximum sale price and/or the shortest TOM. There is a time delay between the date a property is listed for sale up until the date the property is sold. Therefore, the seller must define his listing price ahead of the current market in order to achieve the real market value at the time of sale. The property listing price should be the market value on a future date, given that we assume that each listing requires an optimum TOM to get the highest SP.

If the market is active and prices are increasing, the seller must price his property higher than the market value of the listing date. So, by the time he sells it, he will get the market value at the date of sale. If the market is slow and prices are decreasing, a seller must price his or her property lower than the market value of the listing date. Otherwise, the sale will not materialize due to the gap between the listing price and true market value will keep increasing as TOM passes. Overpricing in a buyer's market will hurt the seller financially. In a buyer's market, when TOM increases, the probability of selling an overpriced property decreases.

If a seller knows the direction, the speed of the property market and the market median SP, then he can calculate the optimum DOP which he can apply to the market value in order to achieve the highest SP in the shortest amount of time. The DOP is measured as a percentage and can be positive or negative. If prices are increasing, then the DOP is positive. If market prices are decreasing, then the DOP is negative. Every property seller is trying to achieve the maximum sale price in the shortest amount of time. The seller will get the most money possible from selling the property and minimizing the opportunity cost by minimizing the TOM.

The primary purpose of the study is to find how the DOP and other control variables affect the TOM and the final SP for residential properties in Paphos urban area. The data are segmented into two groups. The first group consists of houses, and the second group consists of apartments. Regression models are built and examined to investigate if the impact of overpricing and other control variables is the same for houses and apartments in Paphos urban area.

The purpose of the research was not to identify gaps in previous studies. This study confirmed the findings of previous studies. The refinement model of SP for apartments indicates that one day increase on TOM for an apartment was associated with a €0.36 decrease per square meter in SP. For example, let's assume the sale of an 85 sqm apartment which is priced right and will sell at day-1 for €1,200 per sqm. If the apartment is not priced right and takes one year to sell, then the sold price will be €1068.60 (1200–365*0.36) per square meter. In absolute numbers, if the apartment is priced right and is sold at day-1 it will be sold for €102,000, but if the same apartment stays on the market for one year, it will be sold for €90,830. The consequences of overpricing are widely studied in the literature. Our findings are similar to other studies found in the literature. Dubé and Legros (2016) analyzed 29,471 transactions in Montreal from 1992 to 2000 and they found that houses that stay longer in the market sell for less because they send negative information to the buyer.

The outcome of the refinement SP model for both houses and apartments indicates that for listings that asking price changed during their marketing period resulted in a decrease in SP. Although, no statistical significance was detected, we observe that on all SP models the impact of price change to SP is negative. Specifically, when price change is detected during the marketing period, the refined SP models for houses and apartments indicate that the SP is reduced by €77.31 and €105.45, respectively.

Price change is an indication of a wrong initial asking price which is later adjusted by the seller. The same conclusions were made by Khezr (2015) who studied the reasons of price changes during marketing time and he found that when the initial asking price is high, it increases the time to sell, even if the seller revises the asking price during marketing time. The initial asking price has a higher impact than the revised asking price when estimating the TOM (Khezr, 2015). Khezr (2015) findings are consistent with the findings of Turnbull *et al.* (2006) who found that a relatively high initial price reduces the attractiveness of a property, even if sellers are willing to negotiate bigger discounts for their higher initial asking price.

The sample of 998 completed real estate transactions in Paphos from Q1 2008 to Q2 2019 was used to calculate the optimum DOP that a seller must apply on the current market value of a property which will result in the highest SP in the shortest amount of time. In order to keep our data set homogenous, we filtered all non-residential, newly built, off-plan property sales and outliers from our initial data set and the actual data used were reduced to 538. Interestingly, to our knowledge, this is the first research paper to study how the DOP affects the liquidity of residential properties in Cyprus. In order to keep our data set homogenous, we filtered all non-residential, newly built, off-plan property sales and outliers from our initial data set.

2. Literature review

There is extensive literature available regarding the relationship between pricing, TOM, and other variables for residential properties for sale. Therefore, buyers show little interest in homes which have been on the market for a long time.

The literature encompassing the background of the study is divided into five sections. The first section is the relationship of TOM with the property price. Second, literature findings regarding the relationship between SP and TOM with property characteristics are presented. Third, findings of the relationship between SP and TOM with market characteristics and

macroeconomic factors are presented. Then the various factors related to seller motivation and their impact on SP and TOM are presented. Finally, the determinants associated with estate agent characteristics, marketing strategies and their effect on SP and TOM are discussed.

2.1 Price and time on the market

The relationship between TOM and price has been studied in three dimensions. The first dimension is the relation of TOM with the DOP. The second dimension is the relation of TOM with the SP. The third dimension focuses on the relationship between the buyer's search cost and the seller's potential gain during the time the property is on the market (Hui *et al.*, 2012).

In the literature, there are mixed results about the relation of TOM and SP. Some studies show a positive relationship; some studies show a negative relationship, and some other studies show a positive relationship up to a certain number of days on the market, and then the relationship is negative.

Anglin *et al.* (2003) found that DOP has a direct impact on TOM. If the DOP is high, then the TOM increases. Their research shows that TOM for properties in a market niche with low price variance is much more sensitive to DOP. Similarly, Haurin *et al.* (2010) argue that the DOP increases the TOM and the effect is magnified when the comparable properties list price variance is low. That means the DOP has a much more significant effect on the TOM for typical properties than for atypical properties.

Khezr (2015) studied the reasons of price changes during marketing time, and he found that when the initial asking price is high, it increases the time to sell, even if the seller revises the asking price during marketing time. Therefore, the initial asking price has a higher impact than the revised asking price when estimating the TOM (Khezr, 2015). Khezr (2015) findings resemble the results of Turnbull *et al.* (2006) who found that a relatively high initial price reduces the attractiveness of a property, even if sellers are willing to negotiate bigger discounts for their higher initial asking price.

The results of certain studies indicate that the impact of TOM on the SP is uneven. Although TOM is affected by the listing price, negative impact only occurs if the property stays on the market for more than a specific number of days. McGreal *et al.* (2009) found that listing price affects the SP negatively only if the property stays in the market for more than 181 days Jud, Seaks and Winkler (1996) found that the likelihood of selling a house increases in the first 197 days, but after that, the probability of selling decreases and TOM has an adverse effect on the final SP. This is consistent with Taylor's (1999) finding that when a house stays on the market for a very long time, it is stigmatized. Dubé and Legros (2016) found also that houses that stay in the market longer sell for less because they send a negative signal to the buyer.

According to Cirman *et al.* (2015), the DOP is a statistically significant determinant of TOM with a 1% increase in DOP, resulting on average (ceteris paribus) in a 1.10 increase in the TOM. On the contrary, Brastow *et al.* (2012) found that the coefficient of DOP is insignificant for lower-priced properties indicating that the TOM is not affected by the choice of asking price. However, they confirmed that the DOP affects TOM in the case of higher-priced properties. This is consistent with the finding of the Belkin *et al.* (1976) study that price concessions have a higher effect on TOM in markets with higher average prices.

2.2 House characteristics

Apart from the relation between price and TOM, there is ample research regarding the effect of house characteristics and TOM. Hui *et al.* (2012) have studied the impact of an apartment orientation on TOM. They concluded that the orientation does not have any significant impact on TOM. Their explanation for not finding any significant impact of the orientation of

an apartment on TOM is that the price of the property implicitly reflects any negative or positive impact of house characteristics. Therefore, taking into consideration that the price has a direct correlation with TOM, the adjustment in price offsets any negative or positive impact of the orientation of an apartment on TOM (Hui *et al.*, 2012).

Similarly, Turnbull, Dombrow and Sirmans (2006) found that the living area does not have any effect on marketing time. They found that the only characteristic that had a negative effect on TOM was the age. However, older houses take longer to sell only in their subdivision model and not in the multiple listing service (MLS) area which they studied. They also found that smaller houses in mixed neighborhoods sell faster than same-sized houses in homogeneous neighborhoods. However, they did not find any differences in marketing time for larger houses in mixed neighborhoods and their counterparts on homogeneous neighborhoods. Therefore the small-house impact on TOM is much more significant, even without taking into account the effect of price on TOM (Turnbull *et al.*, 2006).

Bello and Adeola (2018) studied the determinants of TOM on residential property in Nigeria and they found that the major factors that determine the TOM are the number of bathrooms, the status of repairs, the zone and the state of water supply.

Chien-Chih Peng and Cowart (2004) found that vacant houses had a higher TOM, and they were sold for approximately 6% less than occupied houses. A possible explanation is that vacant houses are neglected, and they do not look as good as occupied houses (Turnbull *et al.*, 2006).

The atypicality of a house was also found to have a significant impact on SP and TOM. Haurin *et al.* (2010) found that higher atypicality increases the ratio of list price to the sale price; however, the effect of atypicality increases at decreasing rate.

Research shows that high-value properties take longer to sell because asking prices for higher-value properties are not revised as often as listing prices for low-value properties. Knight (2002) attributes the absence of asking price revision for high-value properties to the fact that they are traded in a thin market, so there is little chance for the seller to realize that the property is overpriced. In a thin market, the seller has less information to learn after a failed sale and therefore, less chance to do a price revision (Khezr, 2015).

Cirman *et al.* (2015) found that the age of a property has a positive effect on TOM but this effect diminishes and disappears for very old properties. They also found that properties with an elevator have a shorter TOM compared to properties with no elevator.

2.3 Market characteristics

Researchers have also studied the impact of market-related determinants, such as mortgage interest rates, housing demand and supply, and the season of the year on price and TOM. The effects of overpricing on TOM are dynamic, and they change over time. The market conditions, the supply of alternatives and the search cost for potential buyers affect the degree of impact that overpricing has on TOM.

Cirman *et al.* (2015) argue that during a financial and economic crisis the TOM increases because the DOP is increased due to slow market conditions that negatively affect SPs (Cirman *et al.*, 2015).

The macroeconomic factors have a highly significant impact on TOM. Increases in house price and mortgage rates at the national level extend the TOM. Higher home prices and mortgage rates indicate an increase in the purchasing cost for buyers resulting in a longer TOM. On the other hand, better mortgage availability at lower interest rates, increase buyers' access to financing resulting in a shorter TOM. Cirman, Pahor and Verbic (2015) found that the availability of housing loans had the highest impact on TOM, among all other macroeconomic variables they studied.

In the literature, there are contradicting results about the best season of the year to sell in order to minimize marketing time. Turnbull, Dombrow and Sirmans (2006) found that

summer is a hot season the properties take significantly fewer days to sell than in the other season. They found that properties sell faster in fall and spring than winter, but not as fast as summer. However, Yang and Yavaş (1995) found that listing a property in winter reduces TOM.

Cirman *et al.* (2015) found that increases in the average mortgage rates increase TOM, while better availability of finance at lower rates, decreases TOM. The authors also found that in thin markets the DOP is significantly higher to the DOP found by Anglin *et al.* (2003) in more transparent markets with high property transaction volume. The authors attributed the difference to the low volume of transactions and lack of market transparency in Slovenia compared to the USA.

2.4 Seller characteristics

The required marketing period is not the same for every seller. For each seller, an optimal TOM may exist depending on the seller's holding costs and other constraints (Cheng *et al.*, 2008).

Soyeh *et al.* (2014) found that the use of incentives by results in a significant reduction in the expected TOM but only when is linked with the DOP. Specifically they showed that any decrease in TOM is offset by reduced overpricing. Sellers who start with high asking prices will not benefit any reduction in marketing time, which would have been achieved by the use of incentives (Soyeh *et al.*, 2014).

Genesove and Mayer (1997) found that properties with outstanding mortgages equal to their market values stay in the market 25% longer than similar properties with no mortgage because constrained sellers set higher asking prices with the expectation that market prices will increase and eventually they will be able to sell and move to an equivalent house. The authors also found that for owners occupying their house marketing time is 20% lower than for owners/investors renting their house. Owners with higher reservation prices achieve higher SPs, but at the cost of increased TOM (Genesove and Mayer).

2.5 Estate agent characteristics and marketing strategies

Yang and Yavaş (1995) found that neither the commission rate nor the size of the real estate brokers' company has any significant effect on TOM. Their results indicate that the number of listings and the number of sales of the estate agency have a significant impact on TOM. Specifically, they found that an increase in the number of listings is associated with a higher TOM, while an increase in the number of sales by the broker is associated with a lower TOM. The study of Yang and Yavaş has an inherent limitation because they used data from MLS. MLS is a centralized property listing system in which all agents have access to all property listings in their area. Thus, the size of the listing firm does not have any impact on the availability of listings regardless with which agent the buyer works with.

In a more recent study, Rutherford and Yavas (2012) examined the impact of the brokers' commission scheme and the impact on TOM and the SP. The study found that houses listed by discount brokers take longer to sell, and if they sell, the price achieved is the same with the price of houses listed by traditional brokers, indicating that transaction costs do not affect house prices. These results are consistent with the findings of Lo *et al.* (2004) and Vayanos (1998).

Allen *et al.* (2015) have studied the impact of the number of photos, virtual tours, broker open house and public open house strategies. They found that when a listing has six or more photos, it is more likely to get a higher price, but there is no impact on TOM, either positive or negative. Listings with virtual tours achieve higher prices and sell faster than listings with no virtual tours. Listings with broker or public open houses sell at higher prices but take longer to sell. The results show that marketing tools employed by estate agents impact the likelihood of selling, the SP and the TOM.

Brastow *et al.* (2012) studied the effect of the location of the listing in relation to the agent's service area. Their results indicate that the listings within the geographically concentrated service area of the broker had higher sale probabilities, reduced TOM and higher SPs. Based on the literature, the estate agency which is geographically closer to the location of the property has higher probabilities selling that property at the highest price in the shortest amount of time.

3. Methodology

The hedonic pricing model was used to examine the association of TOM and SP with various factors. According to Rosen (1974) the hedonic pricing model assumes that price is determined by both internal characteristics and external factors affecting the item being sold. The association of the independent variable of DOP and other independent variables with the two dependent variables of TOM and SP were investigated via ordinary least squares (OLS) regression models. In the first set of models had the dependent variable was TOM and in the second set of models the dependent variable was SP. A sample of $N = 538$ completed transactions from Q1 2008 to Q2 2019 was used to estimate the optimum DOP that a seller must apply on the current market value of a property in order to achieve highest SP price in the shortest TOM.

The DOP was calculated as the ratio of the initial asking price to the final sold price. Another computation for DOP presented by Anglin *et al.* (2003) uses regression model specifications and a computational formula. The original asking price is used in a regression model with X = a vector of list prices and M = a matrix of market conditions which includes the desired model variables. Once the mean value of $(\log(p^L)$ is found via regression, DOP was determined with the following formula:

$$\mathrm{DOP} = \log\left(p^L\right) - \mathrm{E}\left(\log\left(p^L\right);\ X, M\right) \tag{1}$$

4. Descriptive data

Table 1 lists alphabetically the municipalities and regions included in the study. A sample of $N = 538$ completed transactions in Paphos from Q1 2008 to Q2 2019 was used to calculate the optimum DOP that a seller must apply on the current market value of a property which will result in the highest SP in the shortest amount of time via the multiple regression. Excluded from the analysis were all non-residential, newly built, off-plan property sales and outliers. Outliers were defined as (1) properties with asking price lower than €29,900 or asking price higher than €640,726, (2) properties with total covered area more than 260 sqm (3) houses with plot size smaller than 45 sqm or bigger than 1066 sqm, (4) properties built more than 26 years ago and/or (5) properties with more than 805 days on the market.

In order to keep the data set homogenous, all non-residential were and newly built, off-plan property sales and outliers from our initial data set.

Table 1. Alphabetical listing of the 18 municipalities and regions included in the Paphos urban area

#	Name	#	Name	#	Name
1	Agios Georgios Pegeias	7	Kato Paphos	13	Paphos Town Center
2	Anavargos	8	Kissonerga	14	Pegeia
3	Chlorakas	9	Konia	15	Sea Caves
4	Coral Bay	10	Mesa Chorio	16	Tala
5	Emba	11	Mesogi	17	Tombs of the Kings
6	Groskipou	12	Mouttalos	18	Tremithousa

Table 2 includes the measures of central tendency and variability for the continuous variables of the study. With the exception of variables relating to property size and price, for which houses had greater mean values, the variable values for houses and apartments were similar. The mean degree of overpricing for all properties was 1.11 ($SD = 0.12$) and houses ($M = 1.12$, $SD = 0.12$) and apartments had very similar values ($M = 1.11$, $SD = 0.11$). The price achieved, computed as the sold price divided by the initial asking price, was on average 91% ($SD = 0.08\%$) for apartments and 90% ($SD = 0.08$) for houses. The average TOM for all properties was approximately 205 days ($SD = 218.05$ days) and ranged from 0 to 803 days. These numbers were similar for both apartments ($M = 202.09$, $SD = 220.62$; Range 0–803 days) and houses ($M = 207.64$, $SD = 216.35$; Range 0–802 days). The mean age at the listing date for all properties was between 10 and 11 years. The mean value for demand, represented by the number of sales contracts in Paphos district over the six months prior to listing date for each property divided by 100, was 7.73 ($SD = 3.33$) for all properties and the demand for apartments ($M = 7.77$, $SD = 3.40$) and houses ($M = 7.70$, $SD = 3.28$) were close in value.

Table 3 includes the frequency counts and percentages of the categorical variables of study for all properties, apartments and houses. As with the continuous variables, the distributions of many of the categorical variable groups were similar for both apartments and houses. Similarities are noted for price change, with a majority of no price change indicated for both apartments (86%) and houses (84%). Most of the properties were sold in the location of Peyia (39% of all properties) with 32 and 45% of properties sold for apartments and houses, respectively. The majority of properties had swimming pools (81% of all properties), and either two or three bedrooms (80% of all properties). Differences in the categorical variables between apartments and houses included the quarter listed. The greater percentage of both apartments (29%) and houses (32%) were listed in Q2, the least number of apartments were listed in Q3 (19%) and the least number of houses were listed in Q4 (22%). No apartments were listed in the locations of Agios Georgios Pegeias, Anavargos, or Konia. The majority of apartments were categorized for the showing mode of key at BuySell office (71%). The majority of houses were also categorized for the showing mode of key at BuySell office (54%); however, the percentage was lower for houses than apartments.

5. Analysis and findings

Two regression models were planned for analysis one with TOM as the dependent variable and the second with SP is the dependent variable. However, information for plot sizes of the properties was available only for houses and not apartments. Therefore, a total of four regression models were needed, two models to assess the TOM and SP respectively for houses ($N = 301$), and two models to assess TOM and SP respectively for apartments ($N = 237$). The first four models were saturated models and included all of the independent variables, except for EUR/GBP exchange rate and EUR/USD exchange rate in the TOM models (see Tables 2 and 3). EUR/GBP and EUR/USD were excluded from the TOM models due to strong positive correlations with demand. The EUR/GBP and EUR/USD variables were included in the saturated model for SP. The regression models for apartments did not include the variables of (1) plot size and (2) plot size to property size ratio (see Table 2). Additionally, the locations of (1) Agios Georgios Pegeias, (2) Anavargos, (3) Konia and (4) Mesogi did not include apartment sales (see Table 3) and were excluded from the regression models for apartments.

The saturated models indicated poor model fits because multicollinearity and variable inflation were noted for houses and apartments in both the TOM and SP outcomes. The four models were refined further to remove variables causing multicollinearity and variance inflation so as to achieve a good model fit. Results of the four refined models are presented in the following sections.

Variable/Property type	*N*	*M*	*SD*	*Mdn*	Range
Time on Market (TOM; in days)					
All properties	538	205.20	218.05	119.00	0.00–803.00
Apartments	237	202.09	220.62	114.00	0.00–803.00
Houses	301	207.64	216.35	130.00	0.00–802.00
Selling Price (per sqm)					
All properties	538	1245.45	474.10	1153.85	454.55–4021.74
Apartments	237	1044.08	354.98	982.14	454.55–4000.00
Houses	301	1404.01	495.93	1319.74	494.65–4021.74
Degree of overpricing					
All properties	538	1.11	0.12	1.09	0.64–2.13
Apartments	237	1.11	0.11	1.09	0.64–1.50
Houses	301	1.12	0.12	1.08	0.0.92–2.13
Initial asking price (per sqm)					
All properties	538	1380.65	519.58	1257.49	504.04–4340.58
Apartments	237	1150.02	364.08	1072.89	504.04–4000.00
Houses	301	1562.25	551.23	1468.13	507.49–4340.58
Final asking price (per sqm)					
All properties	538	1359.54	510.34	1245.08	504.04–4340.58
Apartments	237	1136.02	365.83	1057.75	504.04–4000.00
Houses	301	1535.54	538.86	1441.56	507.49–4340.58
Price achieved					
All properties	538	0.91	0.08	0.92	0.47–1.56
Apartments	237	0.91	0.09	0.92	0.67–1.56
Houses	301	0.90	0.08	0.92	0.47–1.09
Property size (sqm)					
All properties	538	118.58	46.80	110.50	31.67–253.33
Apartments	237	80.75	24.38	82.00	31.67–186.33
Houses	301	148.37	37.84	146.00	55.00–253.33
Plot size (sqm)					
Houses only	301	369.77	238.91	350.00	60.00–1050.00
Property size to bedroom ratio (sqm)					
All properties	524	52.14	10.14	50.61	30.00–95.00
Apartments	223	48.95	10.10	47.00	30.00–95.00
Houses	301	54.49	9.52	53.00	35.25–85.33
Plot size to property size ratio (sqm)					
Houses only	301	2.39	1.35	2.28	0.42–8.01
Age at listing date (in years)					
All properties	490	10.53	4.88	10.00	0.00–26.00
Apartments	221	10.20	4.98	10.00	0.00–25.00
Houses	269	10.80	4.79	10.00	1.00–26.00
EUR/GBP currency exchange rate at sold date					
All properties	524	1.20	0.08	1.20	1.10–1.40
Apartments	223	1.20	0.08	1.20	1.10–1.40
Houses	301	1.20	0.08	1.20	1.10–1.40

Table 2.
Measures of central tendency and variability for the continuous variables of study ($N = 538$)

(*continued*)

Variable/Property type	*N*	*M*	*SD*	*Mdn*	Range
EUR/USD currency exchange rate at sold date					
All properties	524	0.81	0.09	0.84	0.63–0.95
Apartments	223	0.81	0.09	0.81	0.63–0.95
Houses	301	0.82	0.09	0.85	0.63–0.94
Demand					
All properties	524	7.73	3.33	7.88	0.00–13.93
Apartments	223	7.77	3.40	8.05	0.00–13.93
Houses	301	7.70	3.28	7.78	0.00–12.67

Note(s): *N* = Sample Size; *M* = Mean; *SD* = Standard Deviation; *Mdn* = Median; sqm = Square Meters

Table 2.

5.1 Refined TOM model – houses

The results of the refined TOM regression model for houses are presented in Table 4. The *R* value for regression was significantly different from 0 $F(30, 238) = 2.84$, $p < 0.0005$, with R^2 of 0.263 (0.171 adjusted). The adjusted *R*-square value of 0.171 indicates that approximately 17% of the variability in the dependent variable of TOM was predicted by the 30 independent variables in the model. As indicated in Table 4, only four variables (DOP, Q3, age and Mesa Chorio) had a statistically significant effect on TOMAc. In particular, according to the coefficient estimates, a one unit (100%) increase in the DOP for a house results in an increase of 657 days on the market or in other words 1% increase in the DOP for a house will result in an increase of 6.6 days on the market. A house listed in Q3 was associated with approximately 93 fewer days on the market when compared with Q1. Each one-year increase in the age of a property at listing was associated with a decrease of approximately 12 days on the market.

A house listed in Mesa Chorio was associated with approximately 669 fewer days on the market than a house listed in Peyia. The effect of the location Mesa Chorio to TOM compared to Peyia does not make sense. We consider that the TOM associated with Mesa Chorio is an artifact of the model due to the limited number of listings in Mesa Chorio ($n = 2$) compared to Peyia ($n = 135$) which are included in the model.

Semi-partial correlation coefficients were checked to determine the amount of unique variance each statistically significant variable contributed to the model. DOP contributed 4% unique variance to the outcome of TOM; Q3 contributed 2% unique variance to the outcome of TOM, age contributed 3% unique variance to the outcome of TOM, and Location: Mesa Chorio contributed 2% unique variance to the outcome of TOM.

The adjusted *R*-square value of 0.171 indicates that approximately 17% of the variability in the dependent variable of TOM was predicted by the 30 independent variables in the model.

5.2 Refined TOM model – apartments

The results of the refined TOM regression models for apartments are presented in Table 5. The *R* value for regression was significantly different from 0 $F(27, 182) = 2.80$, $p < 0.0005$, with R^2 of 0.278 (0.179 adjusted). Six variables indicated statistical significance: (1) sales price (SP), (2) age, (3) location Coral Bay, (4) location Mesa Chorio, (5) location Tombs of the Kings and (6) demand.

The size and direction of the statistically significant coefficients was investigated. A one unit increase in the SP of an apartment resulted in a decrease of 0.29 days on the market. The SP was mean-centered and we can explain that the outcome of the model indicates that €1 (euro) increase in the SP (per square meter) above the mean for an apartment resulted in a decrease of 0.29 days on the market. Rationally we expected an increase in SP for apartments

Variable/Group	All properties Freq	%	Apartments Freq	%	Houses Freq	%
Year of listing						
2008	53	9.9	24	10.1	29	9.6
2009	41	7.6	23	9.7	18	6.0
2010	28	5.2	11	4.6	17	5.6
2011	29	5.4	19	8.0	10	3.3
2012	24	4.5	10	4.2	14	4.7
2013	26	4.8	11	4.6	15	5.0
2014	45	8.4	15	6.3	30	10.0
2015	50	9.3	23	9.7	27	9.0
2016	51	9.5	19	8.0	32	10.6
2017	85	15.8	34	14.3	51	16.9
2018	79	14.7	34	14.3	45	15.0
2019	27	5.0	14	5.9	13	4.3
Quarter of listing						
Q1 (Jan–Mar)	134	24.9	65	27.4	69	22.9
Q2 (Apr–Jun)	165	30.7	68	28.7	97	32.2
Q3 (Jul–Sep)	115	21.4	46	19.4	69	22.9
Q4 (Oct–Dec)	124	23.0	58	24.5	66	21.9
Price change						
Negative change	71	13.2	26	11.0	45	15.0
No change	456	84.8	203	85.7	253	84.1
Positive change	11	2.0	8	3.4	3	1.0
Property type						
Apartment	237	44.1	—	—	—	—
House	301	55.9	—	—	—	—
Number of bedrooms						
0	14	2.6	14	5.9	0	0.0
1	68	12.6	67	28.3	1	0.3
2	238	44.2	138	58.2	100	33.2
3	195	36.2	18	7.6	177	58.8
4	22	4.1	0	0.0	22	7.3
5	1	0.2	0	0.0	1	0.3
Location						
Agios Georgios Pegeias	10	1.9	0	0.0	10	3.3
Anavargos	8	1.5	0	0.0	8	2.7
Chlorakas	54	10.0	34	14.3	20	6.6
Coral Bay	32	5.9	3	1.3	29	9.6
Emba	10	1.9	2	0.8	8	2.7
Geroskipou	7	1.3	3	1.3	4	1.3
Kato Paphos	60	11.2	47	19.8	13	4.3
Kissonerga	9	1.7	6	2.5	3	1.0
Konia	8	1.5	0	0.0	8	2.7
Mesa Chorio	7	1.3	5	2.1	2	0.7
Mesogi	9	1.7	0	0.0	9	3.0
Mouttalos	2	0.4	1	0.4	1	0.3
Paphos Town Center	16	3.0	16	6.3	1	0.3
Peyia	210	39.0	75	31.6	135	44.9
Sea Caves	9	1.7	4	1.7	5	1.7

Table 3.
Frequencies counts and percentages for categorical variables of study ($N = 538$)

(*continued*)

Variable/Group	All properties Freq	%	Apartments Freq	%	Houses Freq	%
Tala	43	8.0	12	5.1	31	10.3
Tombs of the Kings	35	6.5	28	11.8	7	2.3
Tremithousa	9	1.7	2	0.8	7	2.3
Swimming pool						
No	68	12.6	30	12.7	38	12.6
Yes	470	87.4	207	87.3	263	87.4
Title deed						
No	104	19.3	47	19.8	57	18.9
Yes	434	80.7	190	80.2	244	81.1
Showing mode						
Key at BuySell	329	61.2	167	70.5	162	53.8
Other mode	209	38.8	70	29.5	139	46.2

Note(s): Freq. = Frequency Count of Group in the Property Type; % = Percentage of Group in the Property Type

Table 3.

to result in an increase in TOM, but the model shows the opposite. A possible explanation that higher than the mean apartment price per square meter is associated with fewer days on the market is that due to homogeneity of the sample, apartments with higher price per square meter are of higher quality in projects with more facilities or apartments located in areas with higher rental income, close to the town center or closer to the sea. Therefore, apartments that are in better condition and are located in areas of high demand are selling faster and at a higher price. Age size and direction of the coefficient for age indicated that each one year increase in the age of an apartment at listing was associated with approximately nine fewer days on the market.

An apartment listed in Coral Bay was associated with approximately 369 more days on the market than an apartment listed in Peyia. An apartment listed in Mesa Chorio was associated with approximately 332 more days on the market than an apartment listed in Peyia. An apartment listed in Tombs of the Kings was associated with approximately 168 more days on the market than an apartment in Peyia.

Demand had also a statistically significant effect on TOM. In particular, the results indicate that one unit increase in demand was associated with approximately 16 fewer days on the market.

5.3 Refined SP model – houses

The results of the refined SP regression model for houses are presented in Table 6. The R value for regression was significantly different from zero with an adjusted R^2 of 0.637 indicating that the model explains 64% of the variability in SP. As indicated in Table 6, only seven variables had a statistically significant effect: DOP, property size to bedroom ratio, plot size to property size ratio, age, location Agios Georgios Peyias, location Coral Bay and demand. In particular, a 1% increase in DOP will result in €11.87 decrease in SP per square meter. A one unit increase in the property size to bedroom ratio was associated with a €9 per sqm decrease in SP while a one unit increase in plot size to property size ratio was associated with a €202 per sqm increase in SP. Finally, one-year increase in the age of a house on the listing date is associated with a €22 decrease in the sales price per sqm.

A house located in Agios Georgios Peyias was associated with a €270 per sqm increase in SP when compared to a house located in Peyia. A house located in Coral Bay was associated

Variable	*B*	*SE* B	*β*	*t*	*p*	Tol	VIF
SP (mc)	0.03	0.05	0.07	0.68	0.500	0.323	3.10
DOP	657.42	176.43	0.29	3.73	<0.0005	0.499	2.00
Q2	−48.34	38.63	−0.09	−1.25	0.212	0.545	1.84
Q3	−93.05	40.72	−0.17	−2.29	0.023	0.578	1.73
Q4	−49.76	43.32	−0.09	−1.15	0.252	0.547	1.83
Price change	−50.51	46.37	−0.08	−1.09	0.277	0.629	1.59
Property size to bedroom ratio	0.09	1.54	0.00	0.06	0.956	0.811	1.23
Plot size to property size ratio	−2.26	15.65	−0.13	−0.14	0.885	0.405	2.47
Age	−11.53	3.78	−0.23	−3.05	0.003	0.538	1.86
Location: Agios Georgios Pegeias	−6.06	79.15	−0.01	−0.08	0.939	0.867	1.15
Location: Anavargos	21.20	90.37	001	0.24	0.815	0.849	1.18
Location: Chlorakas	−102.52	62.96	−0.11	−1.63	0.105	0.749	1.34
Location: Coral Bay	−13.49	58.41	−0.02	−0.23	0.818	0.590	1.70
Location: Emba	93.04	83.08	0.07	1.12	0.264	0.882	1.13
Location: Geroskipou	−54.825	158.82	−0.02	−0.35	0.730	0.944	1.06
Location: Kato Paphos	−15.92	66.51	−0.01	−0.24	0.811	0.864	1.16
Location: Kissonerga	−249.41	161.28	0.09	−1.55	0.123	0.916	1.09
Location: Konia	60.42	88.02	0.04	0.69	0.493	0.895	1.12
Location: Mesa Chorio	−668.57	258.46	−0.17	−2.59	0.010	0.710	1.41
Location: Mesogi	−60.16	87.55	−004	−0.69	0.493	0.905	1.11
Location: Mouttalos	419.09	223.51	0.11	1.88	0.062	0.950	1.05
Location: Paphos Town Center	−22.95	227.36	−0.01	−0.10	0.920	0.918	1.09
Location: Sea Caves	−23.12	106.44	−0.01	−0.22	0.828	0.850	1.18
Location: Tala	51.28	51.93	0.06	0.99	0.324	0.773	1.29
Location: Tombs of the Kings	92.77	98.07	0.06	0.95	0.345	0.838	1.19
Location: Tremithousa	−167.42	95.37	−0.10	−1.76	0.080	0.886	1.13
Demand	−5.84	5.12	−0.08	−1.14	0.255	0.639	1.57
Swimming pool = yes	−9.14	51.31	−0.01	−0.18	0.859	0.716	1.40
Title deed = yes	−4.91	41.60	−0.01	−0.12	0.906	0.661	1.51
Showing Mode = Key at BuySell	−7.81	28.36	−0.02	−0.28	0.783	0.882	1.13
Constant	−323.62	236.29	—	—	—	—	—
Model summary			$F = 2.84$, sig < 0.0005 $N = 269$ $R^2 = 0.263$ Adjusted $R^2 = 0.171$				

Note(s): (mc) = Mean Centered; Tol. = Tolerance; VIF = Variance Inflation Factor
Reference category for Quarter = Q1
Reference category for Price Change = 0
Reference category for Swimming pool = No swimming pool
Reference category for Title deed = No title deed
Reference category for Showing mode = other showing mode

Table 4.
Multiple regression results for time on market (TOM), refined model for houses

with a €626 per sqm increase in SP when compared to a house located in Peyia. Finally, a one unit increase in demand decreased the SP by €17 (per square meter).

5.4 Refined SP model – apartments

The results of the refined SP regression model for apartments are presented in Table 7. The R value for regression was significantly different from zero with an adjusted R^2 of 0.554. As indicated in Table 7, 10 variables had a statistically significant effect on SP: TOM, DOP, property size to bedroom ratio, age, location Coral Bay, location Kato Paphos, location Mesa Chorio, location Sea Caves, location Tombs of the Kings and title deed.

In particular, a one day increase in TOM was associated with a €0.36 decrease in price per square meter. A 1% increase in DOP was associated with a €7.87 decrease price per sqm. A one

Variable	*B*	*SE* B	*β*	*t*	*p*	Tol	VIF
SP (mc)	−0.29	0.06	−0.44	−4.63	<0.0005	0.438	2.28
DOP	10.87	187.60	0.01	0.06	0.954	0.587	1.70
Q2	37.60	42.65	0.07	0.88	0.379	0.632	1.58
Q3	34.79	48.71	0.06	0.71	0.476	0.666	1.50
Q4	−37.96	45.02	−0.07	−0.84	0.400	0.629	1.59
Price change	−69.34	53.79	−0.10	−1.29	0.199	0.685	1.46
Property size to bedroom ratio	−1.63	1.80	−0.07	−0.91	0.366	0.749	1.34
Age	−9.28	4.45	−0.19	−2.09	0.038	0.475	2.10
Location: Chlorakas	−12.75	50.86	−0.02	−0.25	0.802	0.719	1.39
Location: Coral Bay	369.50	173.24	−0.18	2.13	0.034	0.553	1.81
Location: Emba	−178.37	239.53	−0.05	−0.75	0.457	0.860	1.16
Location: Geroskipou	−42.74	135.33	−0.02	−0.32	0.753	0.906	1.10
Location: Kato Paphos	32.28	47.61	0.05	0.68	0.499	0.646	1.55
Location: Kissonerga	−120.99	99.68	−0.08	−1.21	0.226	0.848	1.18
Location: Mesa Chorio	332.14	108.08	0.21	3.07	0.002	0.86	1.146
Location: Mouttalos	−268.64	228.01	−0.08	−1.18	0.240	0.949	1.05
Location: Paphos Town Center	16.75	78.06	0.02	0.22	0.830	0.712	1.40
Location: Sea Caves	106.60	126.86	0.06	0.84	0.402	0.777	1.29
Location: Tala	106.58	78.10	0.09	1.37	0.174	0.845	1.18
Location: Tombs of the Kings	167.92	56.99	0.22	2.95	0.004	0.687	1.46
Location: Tremithousa	−99.15	192.62	−0.04	−052	0.607	0.668	1.50
Demand	−15.75	554	−0.22	−2.84	0.005	0.644	1.55
Swimming pool = yes	−2.07	61.38	0.00	−0.03	0.973	0.614	1.63
Title deed = yes	18.91	48.79	0.03	0.39	0.699	0.605	1.65
Showing Mode = Key at BuySell	25.93	37.62	0.05	0.69	0.492	0.797	1.26
Constant	322.03	255.10	—	—	—	—	—
Model summary			$F = 2.80$, sig < 0.0005 $N = 208$ $R^2 = 0.278$ Adjusted $R^2 = 0.179$				

Note(s): (mc) = Mean Centered; Tol. = Tolerance; VIF = Variance Inflation Factor
Reference category for Quarter = Q1
Reference category for Price Change = 0
Reference category for Swimming pool = No swimming pool
Reference category for Title deed = No title deed
Reference category for Showing mode = other showing mode

Table 5.
Multiple regression results for time on market (TOM), refined model for apartments

unit increase in the property size to bedroom ratio was associated with a €7 per sqm decrease in SP. A possible explanation for the negative relationship between property size to bedroom ratio and SP is the homogeneity of the sample. Smaller apartments are built on locations of high demand where the cost of land is higher, therefore apartments in low demand areas tend to be larger and are sold at a lower price per square meter to attract buyers. In contrast apartments in high demand areas are sold faster at higher prices. Each additional year in the age of an apartment was associated with an €13 decrease per sqm in SP.

According to the coefficient estimates, the Coral Bay location commanded a price premium of €1622 per sqm when compared to Peyia, while the Kato Paphos location commanded a premium of €122 per sqm. The results confirmed also an apartment price premium of €200 per sqm in Mesa Chorio compared to Peyia. Apartments located in Sea Caves and Tombs of the Kings sold at price of €699 and €211 per sqm, respectively, compared to apartments in Peyia.

Paradoxically, apartments with a title deed were associated with a €109 per sqm decrease in SP. A possible explanation why the outcome of the model indicates that apartments with no

Variable	*B*	*SE* B	*β*	*t*	*p*	Tol	VIF
TOM	0.06	0.09	0.03	0.68	0.500	0.738	1.36
DOP	−1186.50	235.40	−0.26	−5.04	<0.0005	0.522	1.92
Q2	−29.73	52.84	−0.03	−0.56	574	0.542	1.84
Q3	−18.19	56.16	−0.02	−0.32	0.746	0.566	1.77
Q4	−95.61	58.94	−0.08	−1.62	0.106	0.550	1.82
Price change	−77.31	63.23	−0.06	−1.22	0.223	0.630	1.59
Property size to bedroom ratio	−8.95	2.02	−0.17	−4.43	<0.0005	0.878	1.14
Plot size to property size ratio	201.52	16.89	0.55	11.93	<0.0005	0.647	1.54
Age	−22.07	5.06	−0.21	−4.36	<0.0005	0.559	1.79
Location: Agios Georgios Pegeias	270.52	106.57	0.10	2.54	0.012	0.891	1.12
Location: Anavargos	−33.23	123.29	−0.01	−0.27	0.788	0.849	1.18
Location: Chlorakas	133.98	85.95	0.07	1.56	0.120	0.748	1.34
Location: Coral Bay	625.56	68.61	0.38	9.12	<0.0005	0.796	1.26
Location: Emba	−7.29	113.66	0.00	−0.06	0.949	0.878	1.14
Location: Geroskipou	187.97	216.41	0.03	0.87	0.386	0.947	1.06
Location: Kato Paphos	43.50	90.71	0.02	0.48	0.632	0.865	1.16
Location: Kissonerga	111.51	221.04	0.02	0.50	0.614	0.907	1.10
Location: Konia	121.55	119.96	0.04	1.01	0.312	0.897	1.11
Location: Mesa Chorio	572.77	355.63	0.07	1.61	0.109	0.698	1.43
Location: Mesogi	22.6	119.56	0.01	0.19	0.850	0.903	1.11
Location: Mouttalos	−124.13	307.09	−0.02	−0.40	0.686	0.937	1.07
Location: Paphos Town Center	182.09	309.99	0.02	0.59	0.557	0.919	1.09
Location: Sea Caves	156.84	144.88	0.04	1.08	0.280	0.854	1.17
Location: Tala	91.56	70.74	0.05	1.29	0.197	0.776	1.29
Location: Tombs of the Kings	192.67	133.48	0.06	1.44	0.150	0.842	1.19
Location: Tremithousa	118.34	130.74	0.04	0.91	0.366	0.878	1.14
Demand	−16.64	6.92	−0.11	−2.40	0.017	0.651	1.54
Swimming pool = yes	61.19	69.90	0.04	0.88	0.382	0.718	1.39
Title deed = yes	−27.73	56.73	−0.02	−0.49	0.625	0.662	1.51
Showing Mode = Key at BuySell	5.08	38.70	0.01	0.13	0.896	0.882	1.13
Constant	2967.76	0.09	—	—	—	—	—
Model summary			$F = 16.41$, sig < 0.0005 $N = 269$ $R^2 = 0.682$ Adjusted $R^2 = 0.641$				

Note(s): (mc) = Mean Centered; Tol. = Tolerance; VIF = Variance Inflation Factor
Reference category for Quarter = Q1
Reference category for Price Change = 0
Reference category for Location: Peyia
Reference category for Swimming pool = No swimming pool
Reference category for Title deed = No title deed
Reference category for Showing mode = other showing mode

Table 6.
Multiple regression results for selling price (SP), refined model for houses

title deeds had higher SP, may be due to the fact that separate title deeds for some recently built resale apartments were not issued yet. However, despite the absence of separate title deeds, recently built resale apartments achieved higher SPs because they are within new projects with modern facilities and are built with higher specifications.

6. Conclusion

Currently, in Cyprus, property sellers and professionals have access to prices and the number of transactions, but there is no data regarding TOM. For the first time, this study sheds some light on the impact of DOP and other variables on TOM and the SP.

Variable	*B*	*SE* B	*β*	*t*	*p*	Tol	VIF
TOM	−0.36	0.08	−0.24	−4.63	<0.0005	0.807	1.24
DOP	−786.53	200.85	−0.23	−3.92	<0.0005	0.637	1.57
Q2	29.81	47.60	0.04	0.63	0.532	0.631	1.59
Q3	−20.57	54.36	−0.02	−0.38	0.706	0.665	1.50
Q4	32.00	50.23	−0.04	−0.64	0.525	0.628	1.59
Price change	−105.45	59.73	−0.10	−1.77	0.079	0.690	1.45
Property size to bedroom ratio	−6.95	1.95	−0.19	−3.57	<0.0005	0.798	1.25
Age	−13.30	4.92	−0.18	−2.70	0.008	0.483	2.07
Location: Chlorakas	71.89	56.46	0.07	1.27	0.205	0.726	1.38
Location: Coral Bay	1621.93	154.21	0.52	10.52	<0.0005	0.868	1.15
Location: Emba	−373.18	266.02	−0.07	−1.40	0.162	0.866	1.15
Location: Geroskipou	−33.59	150.90	−0.01	−0.22	0.824	0.906	1.10
Location: Kato Paphos	121.62	52.38	0.13	2.32	0.021	0.664	1.51
Location: Kissonerga	−71.17	111.45	−0.03	−0.64	0.524	0.843	1.19
Location: Mesa Chorio	200.26	121.70	0.12	2.39	0.018	0.844	1.18
Location: Mouttalos	−256.92	2554.46	−0.05	−1.01	0.314	0.947	1.06
Location: Paphos Town Center	−66.51	86.90	−0.04	−0.77	0.445	0.715	1.40
Location: Sea Caves	698.79	131.90	0.26	5.30	<0.0005	0.894	1.12
Location: Tala	119.98	87.06	0.07	1.38	0.170	0.846	1.18
Location: Tombs of the Kings	211.35	63.12	0.19	3.35	0.001	0.696	1.44
Location: Tremithousa	−325.71	213.53	−0.09	−1.53	0.129	0.676	1.48
Demand	−10.53	6.27	−0.10	−1.68	0.095	0.626	1.60
Swimming pool = yes	−68.60	68.24	−0.06	−1.01	0.316	0.617	1.62
Title deed = yes	−108.54	53.81	−0.12	−2.02	0.045	0.618	1.62
Showing Mode = Key at BuySell	−53.74	41.80	−0.07	−1.29	0.200	0.802	1.25
Constant	2625.21	266.64	—	—	—	—	—
Model summary			$F = 11.28$, sig < 0.0005 $N = 208$ $R^2 = 0.608$ Adjusted $R^2 = 0.554$				

Note(s): (mc) = Mean Centered; Tol. = Tolerance; VIF = Variance Inflation Factor
Reference category for Quarter = Q1
Reference category for Price Change = 0
Reference category for Location: Peyia
Reference category for Swimming pool = No swimming pool
Reference category for Title deed = No title deed
Reference category for Showing mode = other showing mode

Table 7.
Multiple regression results for selling price (SP), refined model for apartments

The findings of this study suggest that when DOP increases, TOM increases and SP decreases. Because there is a negative impact of DOP on the final SP and TOM, the conclusion is that the maximum price at the minimum TOM is achieved when the property is listed at the current market value (DOP = 0). Any DOP had a negative impact on both the final sold price and TOM.

It has been reported in the extant literature that the DOP in thin and less transparent markets is higher than in transparent markets with high property transaction volumes. In mature markets like the USA and UK where sold price information is more readily available, the DOP is around 1.5% which is much lower than the 11% DOP detected in our study. The DOP in Cyprus (Paphos) is higher compared to other international studies. Sellers overprice their properties due to fear of leaving money on the table, and then they do subsequent revisions to adjust the price to the current market value. Sellers in thin markets or markets with a lack of transparency have less information to learn from their failure to sell. Thus, it increases the chances of subsequent price revisions which is related to another key finding of this study. We found that SP was reduced for listings that asking price change was detected during their marketing period. Sellers overprice their properties due to fear of leaving money on the table, and then they do subsequent

revisions to adjust the price to the current market value. Sellers in thin markets or markets with a lack of transparency have less information to learn from their failure to sell. Thus, it increases the chances of subsequent price revisions which is related to another key finding of this study. We found that SP was reduced for listings that asking price change was detected during their marketing period. In Cyprus, information about sold prices is available via the land registry, but the information has limited accessibility. The analysis of our study shows that if comparable sales information becomes available to the general public, then we expect that DOP will be reduced. However, the pros and cons of releasing comparable information to the public is a matter of politics. Decision-makers have to weigh the impact between the general good and the interests of professional lobbyists who will attempt to influence the decisions of the legislators.

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Q3 was determined as the best quarter to list a house as relates to TOM. None of the quarters were statistically significant when compared with Q1 in the refined regression model for TOM-apartments (see Table 7). However, from the magnitude and direction of the model coefficients, Q4 was the best time to list an apartment in order to have the shortest TOM. As expected, summer and fall are the busiest months for the real estate in Cyprus. Shorter TOM in Q3 and Q4 for Paphos residential properties is related to the increased demand from overseas buyers. The highest number of tourist arrivals is between June and October, and this is reflected in the demand for properties as well. Apparently but not surprisingly, the current research shows that the Paphos property market is driven by foreign demand.

It was found that buyers are willing to pay more for the same house in a bigger plot than a bigger house in the same plot. The outcome is that smaller houses sell faster at a higher price per square meter than larger houses. Smaller houses are more affordable than larger houses. Therefore, there is a larger pool of buyers for smaller houses than bigger houses. Higher demand for smaller houses results in a higher price per square meter for smaller houses than the price per square meter for bigger houses. Respectively the TOM for smaller houses is shorter than the TOM for bigger houses.

It was further found that each year increase in the age of a house resulted in approximately 14 fewer days on the market. One intuition behind this could be the fact that older properties are less expensive than newer properties. The shorter time for older properties is associated with affordability. More buyers can afford to buy older properties than new properties. Hence, higher demand for older properties results in a shorter TOM.

The results of our research indicate that houses and apartments closer to the sea are sold at higher prices. Specifically, properties in Coral Bay, Agios Georgios Peyias, Sea Caves, Tombs of the Kings and Kato Paphos were sold at higher prices. Higher prices are associated with the fact that properties in these locations achieve higher rental prices due to their proximity to the sea, proximity to amenities and availability of public transport. The results of the current study are consistent with the theories of urban economics and with the existing literature.

The results of the study indicate that sellers should realize that putting an overpriced property on the market, is likely to.

The findings of this study refer to the period from 2008 to 2019 (Q1 and Q2 only) and the geographic area covered in the urban area of Paphos. Future research may include larger samples of data from multiple sources which will cover a larger period and a broader geographic area which will cover all Cyprus districts. Furthermore the study focuses only on residential properties. Future research may expand to other property types and compare the impact of DOP on TOM and SP across various property types, various areas in Cyprus and different periods.

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