The Nature and the Implications of Thin Market in Real Estate Valuation

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Abstract. This paper focuses on thin market issues in real estate mass appraisal. Thin market refers to the accuracy of property value and the availability of comparables data that can be obtained through the market. The purpose of this paper is to identify the nature and the implications of thin market toward real estate appraisal. One of the most important criteria that explain the nature of thin market is the transaction volume. In addition, the nature of thin market also related with macro factors that affecting residential property value such as demography, population, income level and economic based. This paper focuses on double storey terrace house as a case study in Tangkak area. Questionnaires were distributed to the respective local authorities in order to validate the thin market issues in the market. The result indicates the existence of the thin market issues in the study area. There are various implications occurred from thin market issues such as market manipulation, instability of price, price bias, data cannot incorporate quickly, difficult to gather all the required information and consistently of assessment. These implications are related with issues in real estate appraisal.

Keywords: Thin Market, Mass Appraisal, Real Estate, Valuation, Accuracy.

1. Introduction

Basically, thin issue is related with lack of comparables property in doing an assessment. This problem may reflect the accuracy of property value. As mention, comparables property is a vital aspect in valuation process. There are few implications that occur in thin market situation. The implications are price bias, market manipulation, instability of price, data cannot cooperate quickly, difficult to gather all the required information and consistently of assessment. All this implications are related with issues in real estate valuation.

Based on the previous research, there are lacks of study on thin market in real estate field especially in residential property. The term of thin market is myriad discussed in financial where the study is about the thinness transaction in the stocks market. Defining the term of thin market in financial is transaction of stocks is low and its involving the illiquidity of the share to be traded. Besides that, the thin market issues were deeply discussed in agriculture markets [1]. There are three criteria that explained the residential property is thin. The criteria are multidimensional heterogeneity of the property, cannot be purchase fractions or combine the fractions to obtain the ideal unit and multidimensional heterogeneity of desire [2]. This paper is intended to focus on indentifying the nature and the implications of thin market in real estate valuation. The discussions are made as follows.

2. Literature Review

Based on previous research, the concept of thin market is related to the low property transaction. According to [9] stated that thin market refers to situation where the number of transaction is low. However, based on [1] stated that thin market is not only refers to the low transaction volume but the behavior of the market also should be considered in explaining the thin issues. Sometimes, certain market has low

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transaction but the market is not considered as a thin. According to literature, there are few factors that can be considered as a nature of thin market. The factors are low transaction volume, market and types of property. Market factor can be divided into four which are demography, population, income level and economic based. Basically, all these fours factors are related with macro factor that affecting residential property value and the most important factor that should be discussed in explaining the nature of thin market is low transaction volume.

There are many problems that occur in thin market circumstances. The problems considered as an implications of thin market. According to literature, there are six implications that occur in thin market circumstances such as price bias, market manipulation, instability of price, the relevant data cannot cooperate quickly, difficult to gather all the required information and consistently of assessment.

3. Methodology

There are two types of data that involved in this paper which are primary data (questionnaire distribution and secondary data (property transaction for double storey terrace house from 2006 to 2009). The questionnaire was design to validate the thin market issues in the market. In addition, the analysis on the property market was done to perceive the implications of thin market to the efficiency of property value. Questionnaires were distributed to the local authorities around Johor Bahru. The purpose of questionnaire distribution is to identify the nature and the implications of thin in the study area. Besides that, the respondents were asked about their understandings on thin market term. For this study only double storey terrace house were used. The transaction data for double storey terrace house in Tangkak area is from 2006 to 2009. The main source of these property transaction data is obtained from Muar Valuation and Property Services Department (JPPH) and Tangkak District Council (MDT).

4. Discussion and Findings

Chart 1 shows the result from questionnaire distribution on understanding of thin market issues in local authorities. The results demonstrated that the assessors not familiar with thin market term because all respondents said no for this question. The purpose of this question is to observe the understanding of respondents on thin market issues.
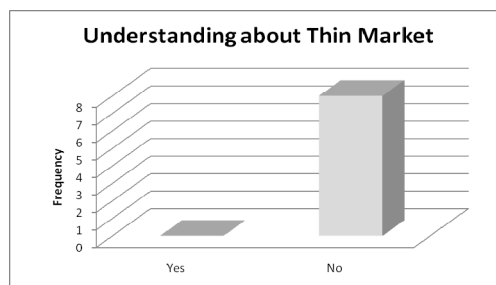

Chart 1, Understanding about Thin Market

Chart 2 shows the result for the nature of thin market. The total higher scale for lack of evidence is five and time constrains is three. It shows that the assessor always deal with this problem in their daily works. Based on the literature, the nature of thin market consist three factors which is low transaction volume, market condition and types of property.
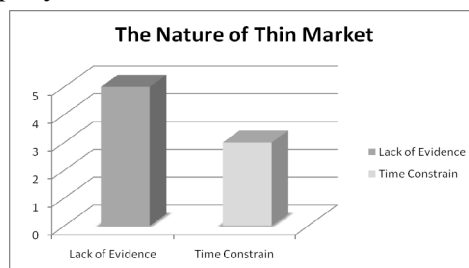

Chart 2, The Nature of Thin Market

The main factor that explained the nature of thin market is the low transaction volume. Based on the result from questionnaire distribution show that the problem related to the lack of evidence (low transaction) were exists in the market with total higher scale at five. It was aligning with the statement by [1]; [2]; [4]; [6]; [7]; [8]; [9] and [10] where, the nature of thin market is related to the low transaction volume. Besides that, the assessors always dealing with time constrain. Time constrain happened when the assessors do not have enough time to complete the task on property valuation. Usually, time constrain happen because the data is incomplete, lacks of comparables, difficult to make an analysis (adjustments) and others.

Chart 3 shows the result from questionnaire distribution on the implications of thin market. The implications that has total higher scale is price bias with scale at five followed by difficult to gather all required document, consistently of assessment with scale four and market manipulation, instability of price, relevant data cannot corporate quickly with scale three.
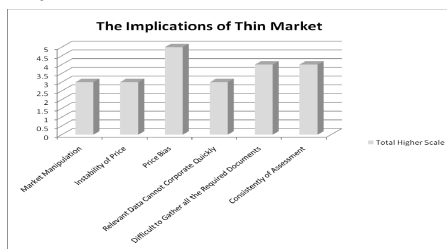

Chart 3, The Implications of Thin Market

According to [7], stated that the concept of thin market is focused on pricing problem. Hence, it was aligning with the result from questionnaire distribution where price bias has a total higher scale at five. Price bias is related with price movement or price volatility. In real estate contact, the movement of the price is very important in valuation process. The variation of price movement will affect the assessment value. The problem arises from pricing problem is the current market price of the property is not reflecting the current market values and it may under or over value [6]. Therefore, it's become problem in assessments process. Thin market lead to the less uniform and regressive distribution of assessments [6]. Besides that, price bias also not represents the true market condition and should not be use as a guide [7]; [5]. According to [3] stated that price bias occurred from human behaviors. Behavior of human is refer to the knowledge and experience on assessor. The assessor must aware and expert about condition of the market under their administration. The assessors are prone to making an error in their valuation and price bias is happen [6].

The price bias may lead to the next implications of thin market such as market manipulation, instability of price, the relevant data cannot corporate quickly, difficult to gather the required documents and consistently of assessment. All the implications of thin market are connected to each other. Hence is very important to overcome this problem in order to make sure the value of property is reflecting the current market. Besides that, analysis related to the market condition in Tangkak area was conducted in order to support the result from questionnaire distribution on the nature and the implications of thin market.
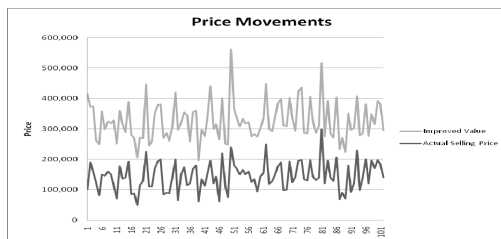

Chart 4, Differences between Actual Selling Price and Improved Value

Based on Chart 4, show the differences value between actual selling price and improved value from 2006 to 2009 in Tangkak area. There are large gap that exists between the actual selling price and improved value and it show that instability of price is exists. Instability of price may lead to the difficulty in doing an assessment. In fact, comparables property is essential aspect in doing an assessment but it become difficult when the price is not reflect the current values of market. This circumstances my lead to the six implications

that already discussed. As mention, the implications of thin market are connected to each others. The price movements also demonstrate the market is thin and it proves that the existence of thin market issues in the market. Hence, is very important to understand the nature and the implications of thin market.

Table 3, Differences between Actual Selling Prices and Improved Value According to Range of Percentages

Range of Percentages	Total Sample	% from Total Transaction Data
±0%-±10%	30	28%
±0%-±20%	41	38%
±21% - ±50%	22	20%
±51% - ±100%	3	3%
±101% - ±260%	13	12%
Total Transaction Data	**109**	-

Table 3 shows the total differences between actual selling prices with improved value according to range of percentages. The original set of transaction data is 227 obtained from MDT. After cleaning process only 109 data were left. Basically, for the purpose of valuation the comparables property should not have the differences value more than ±20% to ensure the values is reflecting the current market. For the purpose of this study, the selected data is from ±10% differences values. Finally, the final set of data is 30 and 24 were used for construction of valuation model and 6 were used for model validation.

The result shows that the total transaction for range between ±0%-±20% is 41. Hence, it demonstrate the existence of thin market issues in the study area because out of 109 data only 41 (38%) can be used for valuation purpose and about 68 (62%) data cannot be used for valuation purpose because it not reflect the current market values. If the data were used for valuation purpose it will cause to the uniformity of assessment values in the market and price bias will happened.

Based on the analysis that had be conducted, the price bias is exists in the market because over 62% data have over ±21% - ±260% differences. According to Nelson and Turner (1995) defined the bias as deviation in sample value. Hence, the current market of property value in Tangkak area shows the existence of bias because 72% of the actual selling prices have more than ±10% differences from improved value. In real estate contact, the movement of the price is very important in valuation process. The variation of price movement will affect the assessment value. The results prove the existence of thin market issues in the study area. According to the research that had been done, the implications of thin market are connected to each others. Once the price bias is exists the others implications also exist.

5. Summary

As conclusion, the results show the existence of thin market issues in study area. There are many implications that occur from thin market issues such as price bias, market manipulation, instability of price, data cannot cooperate quickly, difficult to gather all the required information and consistently of assessment. Besides that, it also important to understand what is the nature of thin market. There are there points that should consider in explaining then nature of thin market. The point are low transaction volume, market (demography, population, income level, economic based) and types of property.

Further study related to this research is to investigate the appropriate valuation model for thin market. It is very important to investigate the appropriate valuation model for thin market because it related to the accuracy of property value. By defining the appropriate model for thin market issues it will increase the accuracy of assessment.

6. Acknowledgements

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