COVER SHEET

CASES ANALYSIS OF AUCTION MARKET IN BRISBANE HOUSING SYSTEM

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Abstract

Only recently, the average Australian residential property market was experiencing negative growth caused by the decrease of average housing prices in the major capital cities, in particular, Sydney and Melbourne. However, other cities were registering positive growth. In a decade, the average house price in Brisbane has increased by more than 150 per cent. In 1994, the highest average house price in Brisbane was around $310,000 but in 2004 it reached $780,000. The high appreciation expectation has also influenced the choice of housing transaction method. In a boom market, auction in Sydney and Melbourne contribute a certain level of residential property market share. In Sydney, there was 50 per cent of all real estate sold by auction marketing. During the same boom period, the Brisbane auction market only had 20 to 30 per cent market share.

This initial study aims to explore Brisbane housing auction market and the risk/benefit analysis to stakeholders in the auction mechanism. This study analyses the results from in-depth interview of representative of stakeholders and recent sales data (mid August to early October 2005). It was also found that vendors gain more benefits than buyers in the auction market. However, the strict terms of conditions that apply in auction transactions relative to the private treaty sales have discouraged buyers from utilising the auction process.

Key words： **Auction Residential House, Auction Mechanism, Housing System, Brisbane**

1. Introduction

The Australian Bureau of Statistics (ABS) has released the first negative annual growth (from June 2004 to June 2005) in average house price indexes for the eight capital cities in Australia (ABS, 2005) since 1996. This negative growth has been largely caused by a decrease in housing prices in Sydney (-5.0%), Melbourne (-1.4%) and Hobart (-0.8%). In the same period, Brisbane house prices increased 1.8 per cent with the residential property market in Brisbane being a regular topic in both the community and the media as prices soared during the first half of 2003.

This high appreciation expectation over the decade had a direct influence on the choice of housing transaction method. Since a property represents about half of the net wealth of the average Australian it is not surprising that any decision made on the purchase and sale of property will be given the most careful attention. There are generally three transaction methods to be considered by buyers and sellers: auction, tender and private treaty.

Any alternative method needs a strategy for decision making in residential property transaction. The ‘one price principle: one commodity – only one price’ never occurs in a property

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market which has incomplete information. There are an infinite number of non-arbitrage prices in the property market. Thus, there is room for both sellers and buyers to develop a strategy to maximise their expected utility.

This initial study aims to explore Brisbane housing auction market and the risk/benefit analysis to stakeholders using the auction mechanism. This study analyses the results from direct observation, in-depth interviews of stakeholders' representative and recent auction sales reports. The remainder of this paper examines in sequence the literature review and methodology, the auction mechanisms and the housing auction market in Brisbane.

2. Literature Review and Methodology

The findings of previous research are discussed in the following literature review which includes both listings and auctions in the housing market. Research in the auction area comprises the housing auction system, mechanism and price comparisons with private treaty sales. In the methodology section, the recruitment process, data sources and analyses are justified.

a. Literature Review

A number of housing market papers focus on the bargaining model and listing price mechanism. One of prominent bargaining models is the one-shot game model which was introduced by Rubinstain (1982, 1985). Maekawa (1996, 2003b) expanded Rubinstain's bargaining model with incomplete information for the real estate market. The previous studies in the listing market analysed the list price for active sellers without considering buyers information (Horowitz, 1992) and the stakeholders' activities in the listing market (Yavas and Yange, 1994). Knight, Sirmans and Turnbull (1994) conducted a study into the roles of the listing price in the determination of the selling price. Nishimura (1999) suggested, in the non-walrasian real estate market, the changes of transaction price have a great impact on the changes of seller's intrinsic value. Furthermore, the diversity of buyers' reservation price was caused by incomplete information and the difference between the buyers' financial capability. Maekawa (2003a, 2003b) analysed the optimal seller's list price (reservation price) which was taking account of the buyers' strategies and their dispersion in the imperfect real estate market.

In the auction pricing side, Vickrey (1961) viewed the auction as an incomplete information game and proposed the famous auction theory 'the revenue equivalence principle' under 'the independent private value auction' circumstances. Each bidder for one object (a property) has their subjected value, which is not affected by other persons, and therefore the different sale methods have the same expected revenue for the seller. In contrast, McAfee, et. al.(2002) indicated the real estate sale will be impacted by the mechanism of sale, potential revenue, and the information disclosure because the real estate auction belongs to 'common value not independent value auction circumstances'. Milgrom and Weber (1982), Quan (1994), Krishina (2002) point out in the 'English Auction-Open Called Bid', the bidders can share the information or outcry some information to rivals. This information can be used as a judgment for adjusting the bidding price.

The auction mechanism is gaining acceptance as an effective method of disposal for commodities in general and real estate in particular. Cramton (1988) queries the auction theory. The English Auction-Open Called Bid auction with 'common value auction circumstances' is an effective disposal method. It optimises return in the auction mechanism and reduces the crisis of the winner's curse. Since the level of competition is an important factor, when the market is under weak competition, the price outcome from the English Auction system is unexpected.

Previous research indicates that upgrading the efficiency of the auction price directly affects the house market. One of auction methods so called price-sealed bid, which bidders do not know others' bid price during auction process. In this method, one of the most influential attributes is the number of bidding processes (bidding times). If the bids are below the reserve price, the first bidding process has failed. Then the second bidding process (bidding time is two) might be offered at the discounted reserved price. The higher bid times reflect a higher failure ratio which is caused by 'over-

valuation' result for the reserved price. If the vendor sets up the lower reserve price from the base price, the bidding time can be reduced and this also avoids breaking down the tender. Lin, Tsai and Chang (1997) stated that the higher reserve price attracts a higher bid price. Vendors put forward an upper-price limit to avoid lower-price bids when they make the reserve price decision. The above phenomenon can provide an indicator for the auction on how to set up the reserve price. Figure 1 shows the relationship between auction price and number of bidders for different auction methods.

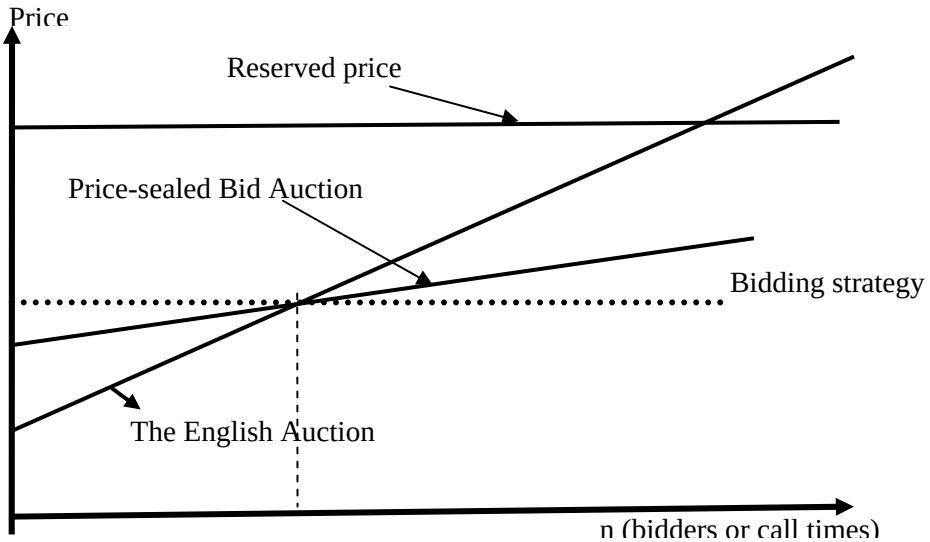

Figure 1. The Relationship Between Auction Price and Bidders
Source: Krishina (2002)

Auction research tends to focus on two main thrusts: evaluating the probability of a positive auction outcome and comparing revenues from different auction formats to revenues from private negotiations. This paper focuses on the auction market comparisons which is summarised in Table 1. Newell et al. (1993) examined the Sydney housing market finding that the median price of properties sold at auction was 3.6 per cent higher than properties sold by private treaty. Lusht (1996) stated that Australia used an English Auction-Open Called Bid system which attains half of the market share in the real estate market. It has also found that auction properties sold at a premium in Melbourne. This study attempted to control the model's quality through adding a number of variables into the hedonic equation. The analysis raises a number of questions, the most important attributes were the rationales of a relatively high percentage of sellers who appear to make suboptimal marketing choices, vendor bids impact, the use of undisclosed reserve price and the lack of commitment to the reserve price which is contrary to accepted auction theory.

Dotzour, Moorhead and Winkler (1998) also found that auctioned properties can be sold for a premium which is above the average house prices. This study examined 5,344 transactions in Christchurch, New Zealand using a hedonic approach. It suggested a significant premium for auctioned properties in two of the four submarkets. In the Ireland property market, Stevenson and Young (2004) also suggested a premium to auctioned properties and applied an advanced modelling to evaluate the accuracy of auction pricing.

Table 1 : The Literature Review of the Auction Market Comparisons

Author	Auction System	Real Estate Market Type	Real Estate Type	Evaluation Method	Final-Price Comparison
Newell et al, 1993	English Auction-Open Called Bid	**Australia**, **Sydney,** the auction market attains half of the market share in the real estate market	Normal asset, residential house	Hedonic price theory	Premium
Lusht, 1996	English Auction-Open Called Bid	**Australia**, **Melbourne**, the auction market attains half of the market share in the real estate market	Normal asset, residential house	Hedonic price theory	Premium
Dotzour, Moorhead, Winkler, 1998	English Auction-Open Called Bid	**New Zealand**, the auction market attains lower market share	residential house	Hedonic price theory	Premium
Mayer, 1998	English Auction-Open Called Bid	**USA**, the auction market attains lower market share	Normal and npl asset mixed, residential house	Reaped sale method	Discount
Marcus, 2001	English Auction-Open Called Bid	**USA**, the auction market attains lower market share	NPL by HUD residential house	Hedonic price theory	
Quan, 2002	English Auction-Open Called Bid	**USA**	Residential vacancy land	Hedonic price theory	
Stevenson, Young, 2004	English Auction-Open Called Bid	**Ireland**	Normal asset, residential house	Hedonic price theory / value	Premium
Ong, Lusht, Mak, 2005	English Ascending Bid Auction	**Singapore**	Foreclosed residential house	Hedonic price theory / value	Discount
Lin, Tsai, Chang, 1997	The First-Price Sealed Bid	**Taiwan**	NPL	Hedonic price theory	Discount
Lin 2005, Lin, Huang (2005)	The First-Price Sealed Bid	**Taiwan**	Foreclosed house from court	Hedonic price theory/ semi-parametric modeling	Discount

A number of studies in the USA have shown both theoretically and empirically, that auctioned properties should not sell at a premium in comparison to private treaty sales. Mayer (1994) argued that as private sellers can wait longer they would receive a higher price from suitable buyers. The auction result is a discounted price which was referred to the cost of liquidity. Mayer (1998), Marcus (2001) and Quan (2002) indicated the auctions of real estate in USA are most frequently the result of mortgage foreclosure, divorce settlement and estate settlement. These circumstances suggested that auction sales are not comparable to private treaty sales in the USA market.

Similarly, Taiwan has foreclosure property auctions which lead to discounted results and an ineffective auction market (Lin, Tsai and Chang, 1997; Lin, 2005; Lin and Huang, 2005). Although Singapore uses the English ascending bid auction (not price-sealed bid as in Taiwan) for the

foreclosure property auctions, it also suggested discounted auction results (Ong, Lusht and Mak, 2005).

b. Methodology

This initial study uses a combination of quantitative and qualitative analyses of both primary and secondary data to review the system, explain the auction market mechanism and its efficiency. These analyses are reported in section three and section four.

The primary source of data is collected by interviewing stakeholder representatives, such as buyer, vendor, real estate agent, auctioneer and financial manager. The respondents are selected using a snowball sampling technique which the latter respondents were introduced to by the earlier ones. Some of the transaction case studies are collected from direct observation of twenty auction events in September and early October 2005.

The other transaction data is collected from secondary resources such as housing transaction databases, newspaper articles and websites. This initial study is based on case studies from recent auction sales data in Brisbane (for periods from the end of August to early October 2005). This study uses Queensland Valuations and Sales Database (QVAS) which compile the housing transaction lists from the property sales records of the Department of Natural Resources and Mines. The data has some limitations in providing information needed for this study, such as the time-lag problem (around two months behind the transaction date) and non-specified transaction type. Moreover, it is not possible to differentiate auction or private treaty sales in QVAS database. In order to combat the above limitation, different sources of auction results have been compiled to illustrate the recent auction sales data in Brisbane.

The only organisation which collected auction transaction information as well as private treaty sales is the Australian Property Monitors. It published the recent property sales weekly in the Courier Mail (Queensland main newspaper) and updated the on-line publication of the latest 40 days of property sales in Home Price Guide® and www.domain.com.au (Fairfax Digital Network, 2005). Besides case studies from direct observation, this study uses the published recent auction sales information from newspaper and websites.

3. Brisbane Auction Mechanism

Almost all stakeholder representatives recommend that the key driver for a decision to use the auction as the sales vehicle for housing is the real estate agent. Housing market prices can be revealed straight away in the auction transaction. This section discusses the auction mechanism and compares it with private treaty sales. Then, further discussion on benefit-risk analyses and stakeholders' attitudes reveal the challenges in choosing auction sales. The stakeholders who are included in the analyses are vendors, licensed real estate agents, licensed auctioneers, potential buyers and other related professionals in the housing transaction.

The license is granted by Office for Fair Trading in Queensland after finalising courses and practical experiences. After registering as a trainee auctioneer, two courses need to be completed: how to prepare and execute documentation (sales) and market property. Then, a further three units of competency need to be fulfilled to obtain a full auctioneer license: implement and monitor financial systems, conduct property sales by auction and maintain a trust account. The final requirement is conducting five auctions under the supervision of a licensed auctioneer. All auctioneer courses are organised by Real Estate Institute of Queensland (REIQ, 2005a).

An auctioneer works for a real estate agent full time or part time on the auction day. Major real estate agents usually have a full time auctioneer, whereas, the small scale real estate agent signs a contract with a free-lance auctioneer for AUD 300 per auction. Auctioneer conducts the auction in accordance with prescribed legislation such as PAMD (Property Agents and Motor Dealers Act 2000), Trade Practice Act 1974 and Property Law Act 1974.

As mentioned in the literature review, an English open-called bid auction is used in Australia. Figure 2 and 3 illustrate this auction mechanism. The preparation stage is very extensive both from

the vendor and buyer perspectives. As the vendor agrees to appoint an agent to use the auction to sell the property, the agent will put the property on the no price listing. It will be advertised widely for at least four weeks in major newspapers and websites. Then, the real estate agent compiles an information kit such as property details. As a marketing tool, the information kit will consist of specific characteristics of the property which will be the best selling point. For example, the site with development opportunities will be provided with development approval from the council. In some cases, the vendor may decide to conduct building and pest inspections and provide the reports to potential buyers to minimise the disturbance to current occupiers. This is not compulsory information in Brisbane but in Sydney the vendor have to declare property conditions and to provide the inspection results prior to auction day. Sometimes, title information is also provided.

Both potential buyers and sellers will need to provide an additional budget prior to the contract sales agreement being signed. Vendors are required to budget for the appointment of an auctioneer (OFT, 2005) and this involves higher advertisement cost compared to private treaty sales arrangement. Buyers need to conduct up-front activities prior to the auction day, such as necessary searches and inspections as well as conduct financial arrangements. These prior activities are needed to comply with the contract clause under the auction terms. Although the auction and private treaty sales use the same standard contract (Contract for Houses and Land Fifth Editions - REIQ, 2005b; Units and Townhouses first edition) there are some differences in the terms of the auction compared to private treaty sales as follows:

- A private treaty sale allows a 5 day cooling off period
- Settlement terms is 30-60 days settlement with conditional terms, such as building or buyers inspection (clause 4) and financial approval (clause 3)
- 5%-10% deposit (which only AUD1,000 to 2,000 as part of deposit need to be prepared on the contract date)

In general, the auction advertisement will attract more potential buyers to inspect the property and come on the auction day. Additional reminder information is produced by the agent for potential buyers such as brochure and phone calls.

Although an offer might be submitted prior to or after the auction, in most cases the auction terms will still be applied. The seller reserves the rights to accept any offer outside the auction day as shown in Figure 2. If the auction process is unsuccessful, the real estate agent will use the exclusive listing and negotiate the listing price with the owner (see Figure 3).

The agent assists the vendor in setting the reserved price by giving a price range from potential buyers which indicates the level of market interest. Recent sales in the area may help to estimate the reserved price without a professional valuation process. Although the real estate agent and auctioneer work on the best possible sale price for the vendor, they will try to push down the written reserved price slightly below market price.

The real estate agent should not indicate a price to the potential buyer because it will provide the wrong impression and put off some potential buyers from turning up at the auction day. In two events of on-site auction, the agent provided a price range as an illustration for the potential buyer. In other properties (in-room auction), the agent advertised the ‘minimum’ buyer class (such as buyer above AUD 250,000) has affected the bidding process which the potential buyer believing that the property was not worth much more than the indicated price.

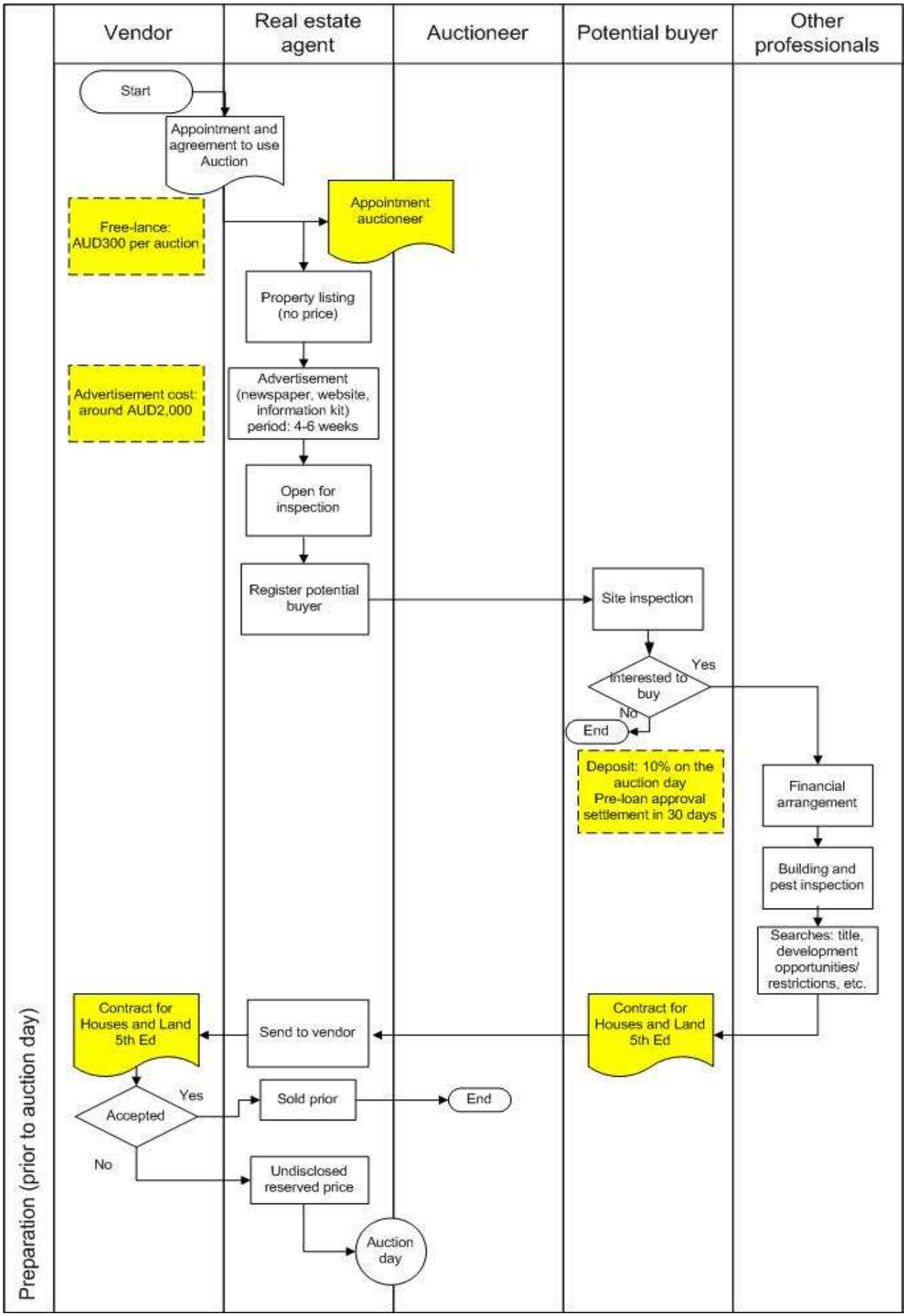

Figure 2. Auction Process: Preparation Prior to Auction Day
Source: Authors (2005)

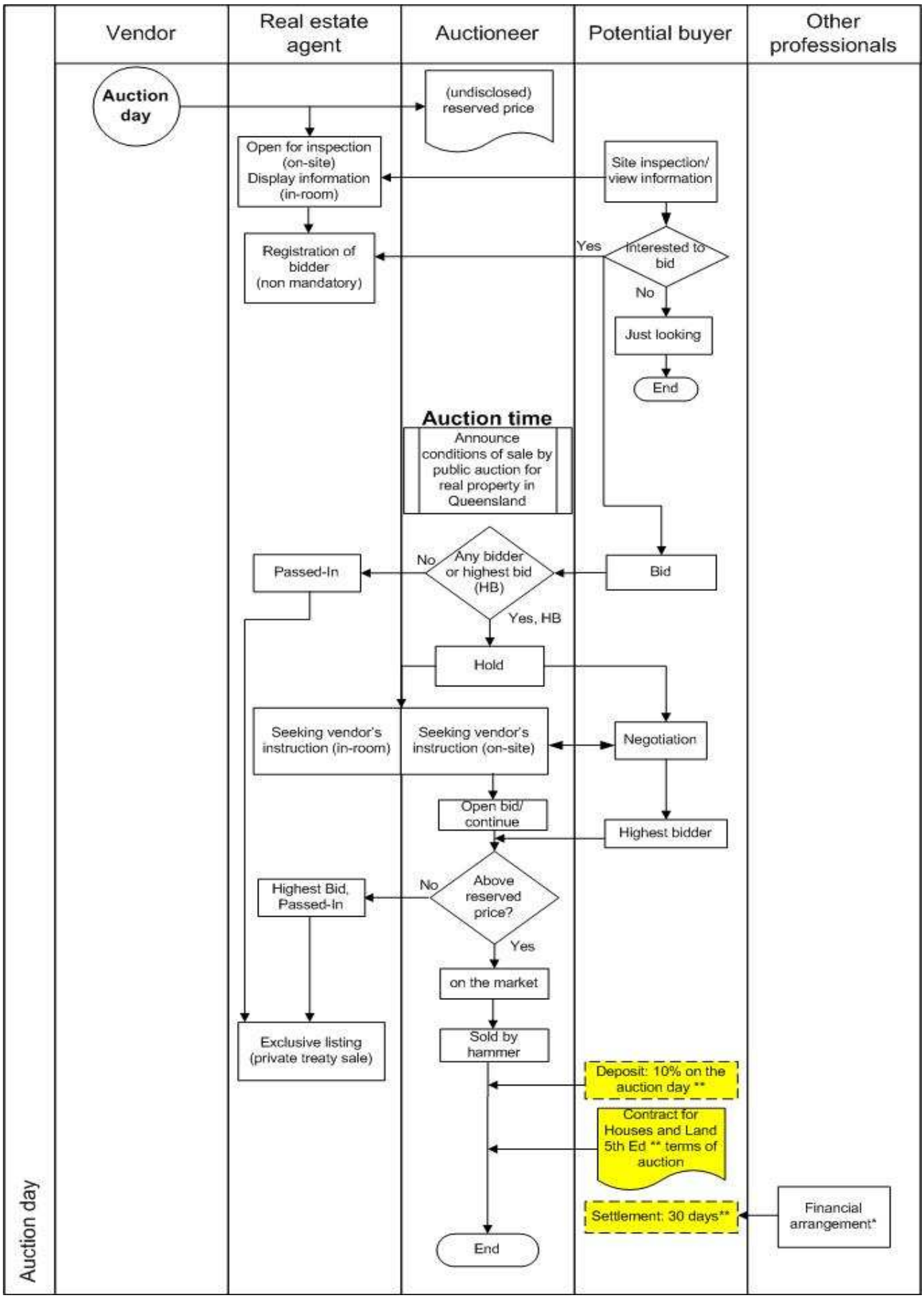

Figure 3. Auction Process at the Auction Day
Source: Authors (2005)

In general an auction takes place on-site, on Saturdays, following a series of public inspections. Some auction events are conducted in-room (at club or hotel) for a number of properties. The in-room auction may be held on Thursday night or Friday morning for selling 10 to 15 houses.

Although an auctioneer works for the seller, all bidders need to be treated honestly, fairly and ethically. Thus, prior to opening the bidding process at auction time, the auctioneer will announce conditions of sale by public auction for real property in Queensland. In Queensland, the potential buyers may choose not to register but still be able to bid (see Figure 3). The auctioneer may bid on behalf of the vendor. A copy of written authority to bid for another person should be given to the auctioneer prior to the bidding process. Whilst in some other states like Victoria, all bidders have to register prior the bidding process starting.

An auctioneer may hold the auction to seek further instructions from the vendor. Then, the auctioneer continues the bidding process and re-announces the highest bid. If the property has reached the reserved price, it will be announced that the property is 'on the market' or 'selling' and it will be sold to the highest bidder. If it is not, the highest bidder will have the privilege to negotiate both price and condition of contracts with the vendor before passing-in the property under the exclusive listing under private treaty sales terms and conditions.

Further discussion on comparing benefits and risks analyses of different stakeholders in the Brisbane residential auction market are shown in Table 2. A housing transaction decision is made by the vendor usually under strong influence from the real estate agents who gain the opportunity to conduct an extensive advertisement campaign. At the auction, the auctioneer provides a competitive environment (which is very effective in the boom time) and the buyers compare their wants and needs, egos and emotions plus the competitive will to win. Although the same mechanism exists in the 'buyers' market (down turn), the buyers are more selective and are not anxious to buy. It is yet to be proved whether a unique property still achieves the same efficiency in different market conditions (boom and down turn).

An auction is part of a marketing process to find a suitable buyer. It is still considered successful if the property is sold prior to auction, on the auction day or within one week after the auction day. Moreover, many of better properties are sold prior to auction day and this influences the sales clearance rate of auctions. The next section will discuss the challenges in the Brisbane auction market as evidenced from recent property sales (in August to October 2005) such as the auction clearance rate.

4. Auction Residential Property Market in Brisbane

Brisbane is Australia's third largest city on a river, by the sea, with a mountain backdrop to the North-West and coastal farmland to the South. Thus, it has potential to match a range of property preferences (e-CBD, 2005). As the capital of the fastest growing and most liveable state in the country, Brisbane has the demand investors need to see excellent returns, and a climate which keeps smiles on residents faces all year round. The City of Brisbane has approximately 371,600 rateable properties, 338,349 residential properties, 76,192 apartments and 5,729 flats, 26,731 commercial properties (e-CBD, 2005).

Table 2. Comparative Benefits and Risks Analyses of Different Stakeholders in Brisbane Residential Auction Market

Stakeholder (number of participants)	Benefits	Risks
Buyer (6)	• Instant results of their offer • More information of the subject property (in some cases) • Deals with other potential buyers and serious vendor who want to sell the property	• Stretch their budget to win the property with maximum price they are prepared to pay (cannot offer the lowest price) • Spend higher up-front cost for searches and inspection prior to the auction day • No conditions on the contract under auction terms (such as building and finance approval), which is very difficult for first home buyers
Vendor (5)	• Better understanding of market price • More control to set the terms, conditions, undisclosed minimum reserve price • Information are better spread which mean more people to inspect the property and/ or come to the auction day • Deals with 'true cash buyer', 10% deposit is payable on the day of sale without uncertainty of financial condition	• Stress on the uncertainty of the outcome of the auction result • Higher transaction cost for extensive advertisement • Unsuccessful auction which bring to private treaty contract sales with higher transaction cost and time.
Real estate agent (7)	• Gain an exclusive right to sell the subject property • More advertisement budget or exposure not just for the property but also their company. More competitor bidders come to the auction day • Contract is set up for one final buyer and seller on the auction day	• Fail to sell the property on the auction day, such as no bid condition, highest bid below the reserved price.
Auctioneer (5)	• Conduct auction • More competitive and committed buyers will bid at the auction day • More control to set the terms, conditions, undisclosed minimum reserve price	• 'worse property' left for auction at the auction day (better one has sold prior to the auction day) • Put off other job but the property sold prior to the auction day. • Lost job if cannot do well on the job
Financial institution (6)	• Pre-approval finance conducted based on the buyer's capacity which can be used for different property (subject to find the property)	• Borrower buy over-valued property which increase the property risk

Source: interview results(2005)

As a result of a very competitive building sector and relatively low home and land prices, Brisbane real estate is much more affordable than Sydney and Melbourne. The median house price in Brisbane is now around $330,000 which is relatively low compared to Sydney ($696,000). Owners should expect modest capital gains over the next 12 months and buyers can take respite in a market that is now simmering, as opposed to boiling. ABS (2005) indicated that Brisbane house price rose by only 1.5 per cent in the June 2005 quarter after falling 3 per cent in March 2005.

The above information provides some background to this study. This initial study set out to determine the significance of the auction in the overall housing market, the reasons behind the recent change, and the implications of these changes.

a. Market facts

In the past boom market, 50 per cent of all real estate in Sydney was sold by auction. During the same boom period, the Brisbane auction market only had 20 to 30 per cent market share. Recently in Brisbane, the relative proportion of properties, differentiated by type of sale, was calculated in Table 3. Based on 24 month data (16 September 2003 to 15 September 2005), the total cases was around 67,422 (Australian Property Monitors, 2005), which was equal to 20 per cent of the total of residential properties of Brisbane areas. The auction listing was 6.75% of total transaction cases. The private treaty sales cases were 93.25% and mostly houses.

Table 3. Properties Cases Sold of Different Housing Transaction 24-Month

Brisbane	Cases	Auction listed	Private Treaty	Auction sold	Auction Clearance Rate %
	67,422	4,548	62,874	1,809	
		6.75%	93.25%	2.68%	39.78%

Note: The source of data in the second column (cases) from Australian Property Monitors (up to 15 September 2005) of HPG data sample base, the rest is estimated figure from this study.

Table 4 shows the volume trend in 2003 to 2005 of listed auction for residential property. The residential auction market clearance rate (CR%) was decreasing from 49.18% to 32.03%. The auction value sold in November 2003 was $111.46 Million and a year after was down to $53.66 Million and up to mid 2005 went down to $24.98 Million. The decreasing trend of CR% and sold value amount indicate Brisbane being in the 'downside' of the property market cycle. This phenomenon may extend through to Christmas (Thompson, 2005).

Table 4. The Brisbane Auction Market Outlook

Brisbane		Number of Auction	Number of Sold	Number of Withdrawn	Clearance Rate %	Value Sold ($ Million)
Nov-2003		452	240	36	49.18%	111.46
Feb-2004		259	131	5	49.62%	66.83
Apr-2004		280	134	8	46.53%	60.59
Jun-2004		236	91	14	36.40%	46.84
Nov-2004		251	103	28	36.92%	53.66
Feb-2005		231	120	10	49.79%	52.22
Apr-2005		242	100	9	39.84%	43.04
Jun-2005		121	41	7	32.03%	24.98

Source: Australian Property Monitors (2005).

b. Recent Result of Residential Auction (mid August to early October 2005)

The result of each weekend's auction are published in the newspaper and website, however, this data set has some limitations and some reservations are expressed about the comprehensiveness of the information as it does not always provide the total auctions held. The published auction results only refer to three event types: sold, sold prior or passed in with the highest bid (HB) or vendor bid (VB). The listed auction property may be sold prior if the seller may in fact accept an offer prior to the auction being held. Auction sold refers to the sales completed at the conclusion of the auction

process (the strike of the auctioneer's hammer). The latter two events may not reach the sellers' reserve price and the property may be passed in for subsequent private sale.

Table 5 describes four sample weekends based on the previous week sales information and in-room auction cases in Brisbane (HPG, 2005). The Courier Mail weekend recent auction results show the auction property market. The passing in result from the highest price bid (HB) is rising in the auction market as shown in Table 5. Table 4 and Table 5 based on the same data source but reported in different time period (weekly in Table 4 and last six weeks transaction in Table 5), the purpose of comparing those tables is to illustrate the changes of Clearance Rate (CR). During the four weeks observation periods, the average CR% was 48%, which was higher than the record of June 2005 in Table 4.

Table 5. The Weekend Recent auction Results (2005)

ID	Input Date	Transaction date	Auction cases	Sold	Highest Bid (HB)	Vendor Bid (VB)	Clearance Rate %
1	20 Aug 2005	10 to 16 Aug 2005	22	11	7	4	50.00%
2	24 Sep 2005	14 to 20 Sep 2005	31	18	6	7	58.06%
3	1 Oct 2005	21 to 27 Sep 2005	37	15	17	5	40.54%
4	8 Oct 2005	28 Sep to 4 Oct 2005	28	12	13	3	42.86%
5 **	7 Oct 2005	In-room aution	10	2	5	3	20.00%

Source: ID 1 to 4 from HPG (2005)
ID 5 ** from one of agents in room auction cases at Brisbane

The following analyses based on the auction results from mid August to early October 2005. Recent house sales per postcode in the Australian Property Monitor's website contain recent six week transaction. The auction results from mid August to early October 2005 are noted as full list in the following analysis and the transaction on late September to early October 2005 are categorized as new list.

The geo-distribution performances of recent house sales which are calculated from the Home Price Guide website are illustrated in Figure 4 and Table 6). The comparison between the new and full list of action results in Figure 4 illustrates ripple effect in Brisbane's outer suburbs has been reversed and the auction home buyers are heading back to the inner city and inner suburbs. The geo-statistics show the house type cases growth in the inner city, inner east and outer east, while the unit type geo-distribution growth is located at inner city, and inner west. The average CR% is 40%; the unit type property is performing better than house type property (see Table 6).

Table 6 Property House Type of Recent Sales

Property Type	Recent Sales * (mid August to early October 2005)	Auction			Grand	Clearance
		Highest Bid	Passed In	Sold	Total	Rate %
House	Full list	43	37	41	121	35.54%
	New list	12	14	8	34	35.29%
Unit	Full list	7	2	6	15	46.67%
	New list	3	0	0	3	100.00%
Grand Total	Full list	50	39	47	136	36.76%
	New list	15	14	8	37	40.54%

Source: Australian Property Monitors (2005)
Note: * Full list transaction records from mid August to early October 2005 and new list transaction on late September to early October 2005

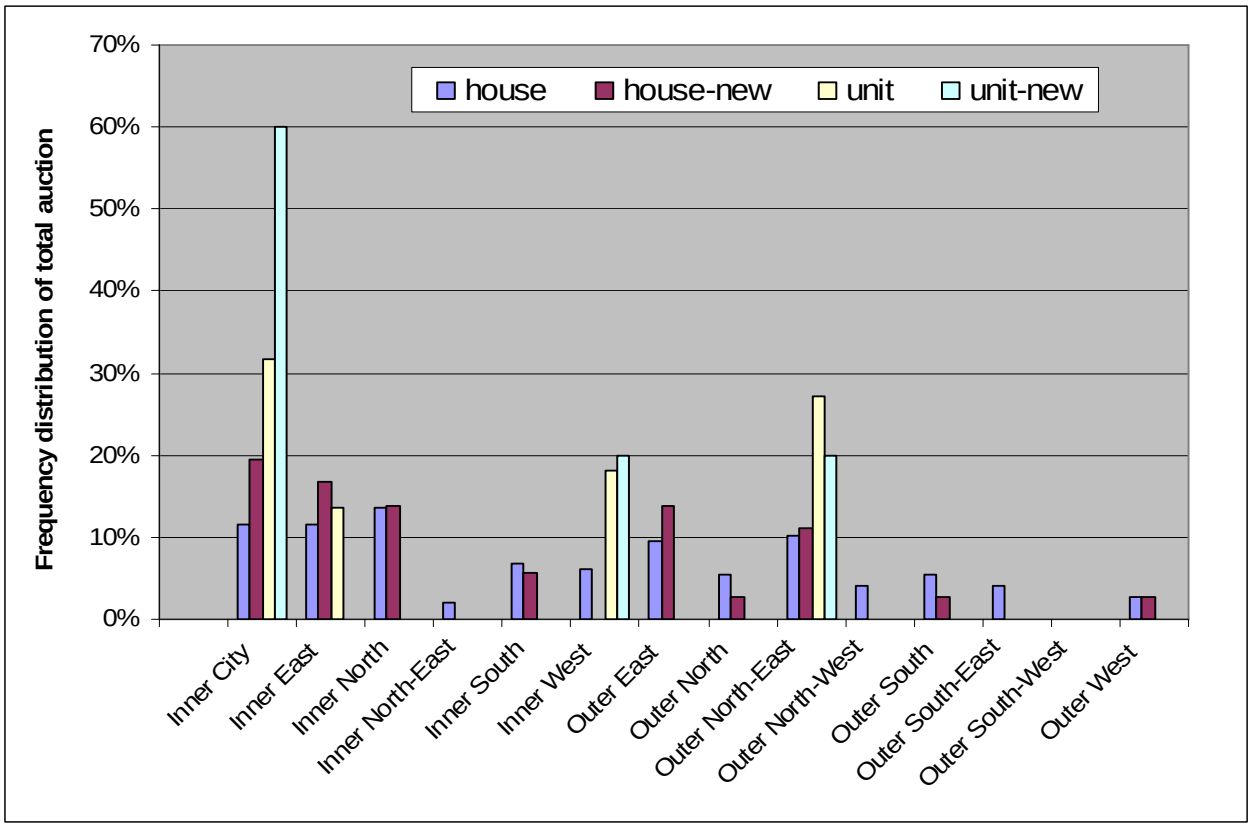

Figure 4. Geo-Distribution Performance of House and Unit Auction Sales (mid August to early October 2005)
Source: Australian Property Monitors (2005)

The 40 to 48 % clearance rate on house auctions indicated that buyers are more likely to get a bargain if a property is passed in because they can then negotiate a sales price from a stronger position. Then, there is the fact that the proportion of properties now being offered at auction is much smaller than it was at the height of the recent boom. Even when auctions do go ahead, people are not ready to bid. Sometimes the bidders are not prepared to make the first bid. Everyone is sitting back and observing what happens. This downturn is cyclical, and from past experience, when an upturn comes, they will come back. But the number of auctions for Brisbane 2005 is at the lowest point in five years, and this time it will take a while (Thompson, 2005). It represents a great opportunity for buyers.

Table 7 listed top ten Brisbane selling agent based on their auction performance from mid August to early October 2005. Ray White, RE/MAX and HARCOURT utilise auction more than the others. The auction performance have larger distribution as illustrated by the clearance rate (CR%). As mentioned in the previous section, auction has more than six week turnover (see Figure 2 and 3), larger set of data will provide more meaningful explanation.

Table 7. Top Ten Brisbane Selling Agent Auction Performance in mid August to early October 2005

Selling Agent	**Total cases**	**Auction Sold**	**Auction Highest Bid**	**Auction Passed In**	**Clearance Rate %**
AC Ascot	2	2	0	0	100.0%
Adcock Prestige	1	1	0	0	100.0%
FN Metro	2	1	1	0	**50.0%**
HAR	23	10	7	3	43.5%

LJH	3	2	0	1	66.7%
PRD	4	1	0	2	25.0%
Public Trustee of QLD	4	2	0	2	50.0%
Ray White	70	18	26	16	25.7%
RE/MAX	36	11	9	12	30.6%
Space Property Agents	4	3	0	0	75.0%

Source: Australian Property Monitors (2005) from mid August to early October 2005

c. In room auction case study

Recent Property Sales using the 'in room' auction other than the on-site auction have attracted more buyers to the Brisbane auction market. Since no information available to count the bidding call times and the initial price, this initial study utilise a small case study (11 cases only) to investigate the competition level and indication of market efficiency. Further study need to investigate the research outcome of this small sample study.

From the in room auction case study we can gain more information about the Brisbane auction market. As mentioned in the literature review, the real estate auction belongs to the 'common value auction', the bidder information is open at auction site which creates a relationship between bidders. This information can be the judgment of pricing adjusted. In this case study, two sources of information is used as auction attributes: pre-price and initial price. The recent property sold in the neighbourhoods is used as pre-price attribute and the starting bidding price is used as an initial price attribute.

Two analyses on the 11 cases of in-room auction are shown in Table 8 and 9. Table 8 shows the house attributes correlation of the auction final bid price and biding call times (proxy as the number of bidder). The more bidders the more the amount of the auction will rise. However weaker competition shown in this case study produces a weaker correlation (0.13, and worsen in unit property type -0.15). In the weak competition circumstances, using the English auction market might produce an unexpected price.

Table 9 shows the price difference theory, if the coverage rate is smaller than the market, the auction is relatively more effective than the private sales (search market). The coverage rate is computed from the two market comparisons, search and auction market. In this case study the proxy results show the auction market coverage rate being smaller (82.22% in auction market, 386.60% in search market). Therefore, the auction mechanism in this small case study (11 cases) is more efficient than the search market. Both market efficiency and weak competition result for auction mechanism are only applied in this case. A further study with a bigger data set will illustrate the Brisbane auction market efficiency.

Table 8. The Case Study In-Room Housing Auction Attributes Correlation

House /ALL	**Amount**	**area**	**biding call times**	**initial price**	**Pre-price**
Amount		**-0.49 /-0.49**	**0.13 /-0.15**	**0.94 /0.92**	**0.52 /0.67**
area			**-0.56 /-0.56**	**-0.30 /-0.30**	**0.51 /0.51**
biding call times				**-0.20 /-0.31**	**0.06 /0.01**
initial price					**0.66 /0.63**
Pre-price					

All : in-room auction house / unit included

Table 9. The Case Study In-Room Housing Auction Market Pricing

Cases Price Factors	(1) Amount	(2) Initial price	(3) Pre-price	(4)=(1)-(2) Price diff 1	(5)=(1)-(3) Price diff 2	(6)=(3)-(2) Price diff 3	(7)=(4)/(2) ** Converage Rate %	(8))=(6)/(2) *** Converage Rate % 2
Average	$399,472	$316,111	$359,389	$83,361.1	-$29,892.9	$96,357	34.00%	8.12%
STD	155034	140974	203399	$60,951.7	$177,161.5	180147	0.2796	0.3139
CV	38.81%	44.60%	56.60%	73.12%	-592.66%	186.96%	82.22%	386.60%

5. Conclusion

In the Brisbane auction market, the auction mechanism has pushed up-front higher transaction cost for vendors and potential buyers compared to private treaty sales. Moreover, an unsuccessful auction is not only costly financially but also inefficient in terms of time. An auction provides an instant result and a better understanding of market price. As discussed in Table 2, vendors and their team gain more benefits by conducting an auction compared to potential buyers. Moreover, buyers lose the privilege of having a five day cooling off period and being able to organise a more flexible financial arrangements.

The combination of lower auction clearance rates, decreasing auction values and less than exciting price growth suggests that the Brisbane residential market is in a downside market cycle. Moreover, the lower clearance rate of the house auction outcomes illustrates the higher bargaining power on the buyer's side. The current situation has had a different impact on different suburbs. The geo-statistics found a ripple effect occurring with auction home buyers heading back to the inner city and inner suburbs from Brisbane's outer suburbs.

From the in-room case study of 11 cases, this study found weak competition which is reflected by the weak correlation (0.13). The weak competition in the English Auction market might present an unexpected price. This study uses the bidder calling time as a proxy for the number of bidders to compute the coverage rate. Using the same sample, the coverage rate for auction market (82.22%) is smaller than the search market (386.60%). Thus, the auction mechanism in the case study is more efficient than the private treaty market. Due to the small sample size, this result can only apply to this case. Further study using more data cases will provide a better understanding of Brisbane market efficiency.

In the auction process, the vendor and real estate agent have stood to gain greater benefits from auction mechanism than from private treaty sales. However, on the downside, buyers have more bargaining power to negotiate favourable auction terms and conditions. Moreover, if the property does not sell under the hammer at the auction day, the negotiating parties may resort to private treaty sales contract conditions.

This initial paper leads to further research on modeling the historical data of auction results and studying the impact of unsuccessful auctions on the final result of the sales. When the auction is passed-in, potential buyers have a greater bargaining position since the full terms of conditions of the contract for the purchase and sale of houses and land will be applied. This may provide an opportunity to offer a lower price than what they can afford. Thus, it is the real estate agent's responsibility to adjust the reserve price to suit the prevailing market conditions.

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