

Can an Uber [digital disruption] for multi-owned housing solve some common housing problems?

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▶ think **forward**

Overview

This paper considers how the economic theory underpinning E-commerce technology platforms such as Uber, *Market Design* (and specifically a two-sided matching markets), may be utilised to de-risk multi-owned housing development, and thus contribute to improved housing affordability.

Semi-structured interviews with operators of real estate platforms aggregating demand and with 'deliberative developers' (DIY development syndicates)

Uber, Tinder, Grindr, Airbnb.... Digital disruption

A technological & social revolution

- Internet
- Mobile telephony
- Real time, 'networked' & cheap communications
- Computing power & applications

Also an economic revolution

Market Design (Alvin Roth)

Economic theory behind E-commerce eg Uber, AirBNB, but also human kidney donation, native vegetation offsets etc

An off-shoot of game theory (strategic behaviour & cooperation)

Market Design fixes markets or creates 'markets where there were none' (Roth 2007, p. 1).

Whereas neo-classical economics posits markets as 'simply the confluence of supply and demand' (Roth, 2007, p. 1), Market Design understands markets as 'constructions' that have been designed and which have rules that evolve over time in response to the economic environment. This presupposes that there is no single market design or construction.

Market Design

‘Two-sided matching markets’

One of the main functions of many markets and social processes is to match one kind of agent with another: e.g. students and colleges, workers and firms, marriageable men and women...A market is two-sided if there are two sets of agents, and if an agent from one side of the market can be matched only with an agent from the other side. (Erev et al., 2002)

- Aggregation of buyers and sellers into two ‘pools’ (via membership)
- Market manager (platform/clearinghouse)

Enables

- Pre-identification of potential buyers & data on actual preferences (thus reducing search costs)
- Supply side responsiveness to demand (segmentation)

Market Design

The four prerequisites of a properly functioning two-sided market:

- Thickness
 - Requisite number of buyers & sellers
- Safe
 - Confidence to reveal their information
- Simplicity
 - Rules & processes need to be workable, transparent & remove need for complex strategising
- Congestion
 - Transactions need to be conducted quickly and efficiently

Knowledge gaps

Critical understanding of how private apartments are provided is very limited (generally, not just Australia)

- “empirical evidence related to house-building is limited” (Ball 2012: 29)
- Practice & teaching literature
- Small critical literature on developers and the development industry

Residential development finance credit assessment: lost sight of key risk

Market Design

Renewed attention to critical issues facing markets, which Milgrom (2011, p. 311-319) outlines as:

- product definition – what is the commodity and how should it be defined?;
- messages – how do participants communicate in markets?;
- incentives – the trade-offs between the incentives provided for truthful reporting
- linkages among markets – how trade in different goods are linked.

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Why apply Market Design to multi-owned housing?

The apartment development model in Australia needs fixing!

It involves:

- High search costs for presales
- Settlement risk



Looking for needles in a haystack

That is, demand volatility is the major risk of development & mitigation measures are inadequate.

Outcomes:

- Generic, poor quality product
- Lack of owner-occupation
- Reliance on uplift in values (Speculation)

Applying Market Design to multi-unit housing

Search problem?

- Aggregate buyers, find out what they want, line them up
- Aggregate developers, branding & reputation
- Relationships & communications

Settlement risk?

- Create attachment by responding to articulated preferences

Shooting fish in
a barrel

Emerging two-sided market platforms

First pick

Apartment purchasers, first home buyers and astute investors

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Interviews with
2 internet platforms

Melbourne-based, *Apartment Register*

German-based, going international, *Group Estate*

2 deliberative developers (DIY developers who aggregate demand)

Melbourne-based *Nightingale Housing & Property Collectives*

1 Case study of internet platform (*Citiniche*) compiled from publically available data

NOT crowdfunding websites or fractional real estate

Findings

Market is broken – needs fixing

Responding to lack of product for owner occupiers and concerned about declining affordability

Implicit and explicit knowledge of two-sided matching markets

‘housing dating bureau’

Costs of obtaining presales can be reduced by aggregation

‘Every baugruppen that exists has an organiser who’s already paying money to somebody to try and find members. Usually, they’re doing it a very inefficient way’.

Trust incredibly important – information & truthfulness fundamental to success - marketplace must be safe

Buyer stickiness (responsiveness to preferences) mitigates settlement risk

Noted the substantial linkages with other markets (eg credit) – aggregation permitted more advantageous finance deals

Findings

Thickness - benefits available even when small number of buyers and sellers but more concerned that buyers can exercise choice

Congestion – ‘a problem we’d love to have’ but awareness that satisfying demand means a pipeline of projects is needed – but development can be delayed for many reasons – concern buyers will seek alternative housing options

Conclusions

- Market design is explicitly and implicitly informing innovation in delivery of multi-owned housing
- Aggregating demand and greater responsiveness to demand preferences recognised as a key means of reducing development risk.
- Two-sided matching markets are able to reduce production costs, improve quality and affordability.

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