

Unpacking The Tragedy of The Anticommons: A Qualitative Study Addressing Its Influence on Strata Subdivision Termination for Urban Redevelopment

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Abstract

The "Tragedy of the Anticommons" concept illustrates a scenario where multiple stakeholders holding rights to a single property can lead to its neglect, as they can impede one another from utilizing it effectively. This situation is notably observed in the context of strata subdivision termination governed by Malaysia's Strata Title Act 1985 (Act 318), where unanimous resolution is mandatory. Due to the formidable challenge of attaining this consensus, the progress of urban redevelopment efforts is hindered. The consequence of numerous owners overseeing a strata property has resulted in underutilizing its potential, depleting its value, and impeding sustainable urban development. This is exacerbated by the fact that a minority can prevent the majority from selling their property, leaving the building in disrepair. This article applied the widely recognized concept of the "Tragedy of the Anticommons," commonly associated with environmental concerns, to the context of strata ownership. Furthermore, this article aims to propose solutions to mitigate the influence of the Tragedy of the Anticommons on strata termination which subsequently assists the urban redevelopment effort. This article employs a systematic literature review to identify the factors affecting ownership in strata subdivision termination and explore relevant potential solutions. Subsequently, these proposed solutions are validated through semi-structured interviews with five experts specializing in policy implementation of strata and land ownership. The findings emphasize the need to revise the legislation on the consent threshold, voting determinant, the avenue for grievances, termination timeline, valuation of property, and allocation of sale proceeds.

Keywords: The Tragedy of The Anticommons, Strata Subdivision Termination, Strata Termination, Urban Redevelopment, Strata Ownership, En-Bloc Sale.

Introduction

The dynamics of property rights in urban environments have long been a subject of scholarly inquiry. One particular facet, known as the Tragedy of the Anticommons, unveils a complex

interaction of ownership rights on the property, often leading to the underutilization or neglect of valuable land resources. This phenomenon has gained traction in various contexts, including strata ownership, a prevalent form of property development in urban areas.

Urban redevelopment is an effort to rebuild areas that are found to be dilapidated and causing urban decay. This effort is pertinent in reducing the negative impact of urbanization where the increasing population has caused resources such as land and space to become rapidly insufficient. However, in Malaysia, redevelopment projects involving dilapidated strata buildings typically require the termination of existing ownership structures before the land can be transferred and new development can begin.

Act 318 mandates a unanimous resolution for the subdivision of strata buildings to be terminated, a process integral to urban redevelopment. While conceived to safeguard individual property rights, this stringent requirement often presents significant challenges in achieving consensus among diverse stakeholders (Christudason, 2010). This study aims to unpack the implications of the Tragedy of the Anticommons on strata subdivision termination within the setting of urban redevelopment in Malaysia. Specifically, it aims to propose solutions to mitigate the influence of the Tragedy of the Anticommons within the context of strata ownership.

By shedding light on the barriers posed by current legislation, this research found that it is important to create a holistic legislative and regulatory framework on strata subdivision termination that could foster the establishment of a sustainable and resilient city. This involves incorporating six crucial elements in the termination process which encompass lowering the consent threshold, establishing a mechanism for addressing grievances, ensuring an effective method for the distribution of sale proceeds, guaranteeing a fair voting determinant, determining a well-defined timeline of the process, and mandating proper engagements among stakeholders.

These elements are identified through a combination of systematic literature review and semi-structured interviews, aiming to propose solutions for mitigating the risk of neglecting valuable properties. These proposals are then validated by five experts in strata policy, ownership, and registration to ensure their relevancy and applicability within the industry. To ensure access to the most relevant expertise, the study targeted individuals from two key groups. The first group is the State-Level Experts where Professionals affiliated with the Director of Land and Mines Offices (DLMO) in Penang and Kuala Lumpur were chosen. These states boast some of the highest numbers of registered strata titles in Malaysia, providing valuable insights into real-world challenges. The second group is the Federal-Level Experts which consisted of the research and development division of the Department of the Director General of Lands and Mines (DGLM). Their involvement offered a broader national perspective on strata termination issues. By employing a combination of in-depth interviews with key stakeholders and a detailed analysis of relevant legislation, this research method strives to provide a comprehensive understanding of the challenges associated with strata termination and to generate practical recommendations for legislative reform.

The Tragedy of the Anticommons

Before exploring the concept of the Tragedy of the Anticommons, it is important to first introduce the history of the term "Tragedy of the Commons." Coined by ecologist Garret Hardin in 1968, it describes the phenomenon where a commonly shared resource, when used without restraint, eventually becomes depleted (Yamada & Yoshihara, 2008). This applies to various aspects of life, including education, health, environment, economics, and cultural

heritage (Azmi, 2012; Benjamin, 2012; Ram-Tiktin, 2018). While communal ownership offers compelling advantages for managing shared resources, it inherently presents the risk of overexploitation. This occurs when individual actors, motivated by maximizing personal gain, engage in excessive resource utilization, ultimately depleting the shared resource and diminishing its value for everyone. Instances such as the excessive grazing of communal pastures or the depletion of fish stocks through overfishing illustrate this phenomenon.

Building upon this foundational work, subsequent research has explored various facets of the concept and offered various approaches to address the challenges encountered. Some approaches involve privatization or regulatory measures to control the usage of resources (Bezin & Ponthière, 2019; Deese, 2019). However, these methods can produce unintended consequences, where regulation may prove ineffective, and privatization can result in fragmented ownership, hindering effective resource utilization (Heller, 2013). Reacted to the widely accepted "Tragedy of the Commons," M.A. Heller introduced the "Tragedy of the Anticommons" in 1998. While the "Tragedy of the Commons" warns against unregulated communal ownership leading to depletion, the "Tragedy of the Anticommons" points to a different pitfall: excessive fragmentation of ownership. Here, a single resource is divided among numerous parties, creating gridlock in decision-making and hindering its optimal use. This can lead to missed opportunities and economic losses for all stakeholders, as highlighted by Cebeci (2020) (Cebeci et al., 2020). Ultimately, both these concepts underscore the importance of finding a balanced approach to managing shared resources, ensuring they are neither overexploited nor underutilized. This is illustrated in

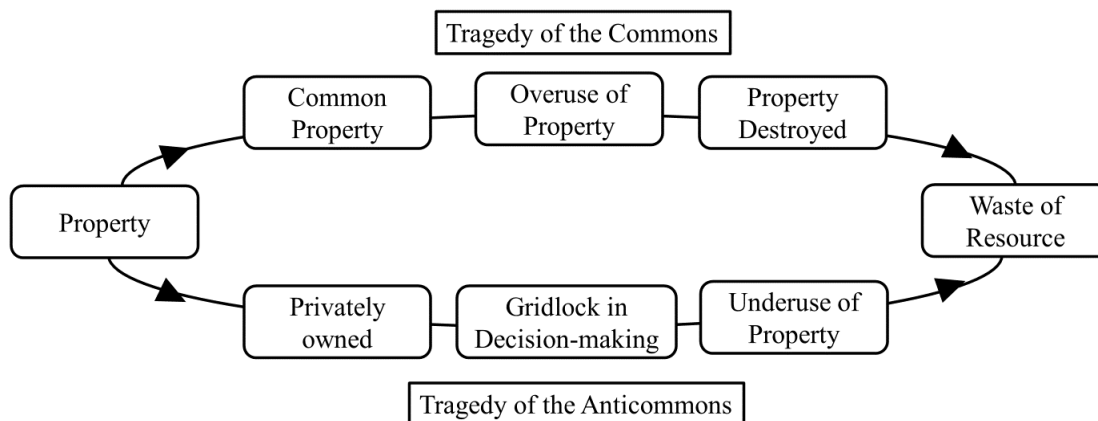


Figure 1 below.

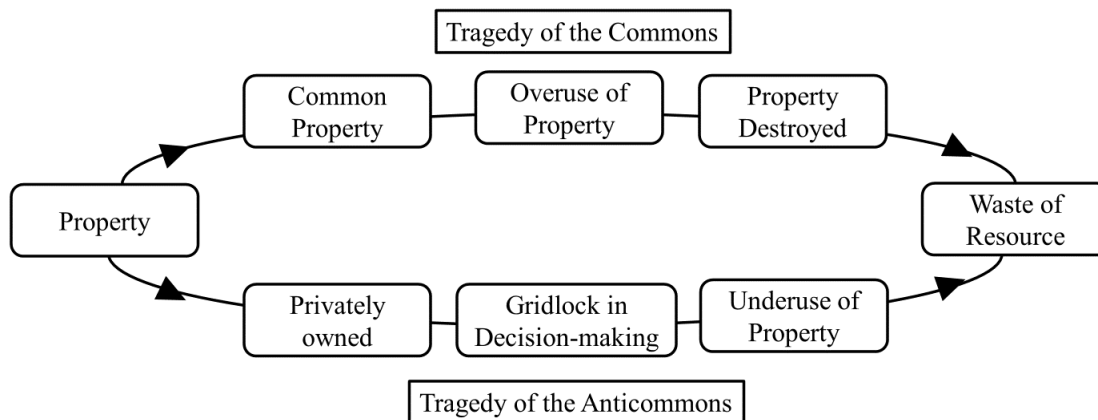


Figure 1. The Tragedy of the Commons and The Tragedy of the Anticommons. Source: Adaptation From (Heller, 1998)

Both the Tragedy of the Commons and the Tragedy of the Anticommons highlight the critical necessity for prudent resource management. This is essential to prevent wastage that could ultimately harm the community and hinder its progress. These concepts emphasize the significance of careful and coordinated resource management. In the context of strata ownership where buildings are collectively owned, there often arises a challenge in making decisions about building management and land use (Sim et al., 2002). Due to the intricate ownership structure with multiple stakeholders, decision-making regarding termination and redevelopment becomes cumbersome, potentially leading to delays, inefficiencies, and missed opportunities (Cebeci et al., 2020; Easthope et al., 2013).

The Tragedy of the Anticommons in The Strata Ownership for Urban Redevelopment

A strata building with multiple owners is characterized by individual ownership of specific parcels within the subdivided structure, alongside shared ownership of communal amenities and common areas (Shukri & Maidin, 2010; Teo, 2023). A strata building accommodates diverse owners with varying preferences and interests in their individual properties. All parcels are physically interconnected and have mutual obligations to support one another (Easthope & Randolph, 2018; Shukri & Maidin, 2010; Van de Merwe, 1994). The registration of strata titles is directly connected to the lot's title or master title, represented by the issue document of title (IDT) through the use of strata plans. According to section 13 of Act 318, the boundary of a strata parcel is contained within the boundary of the land lot on which it is constructed. Therefore, the lot and all strata parcels are bound together, and this mutual dependency will only end once the strata subdivision is terminated (Shukri & Maidin, 2010). This connection is illustrated in figure 3 below.

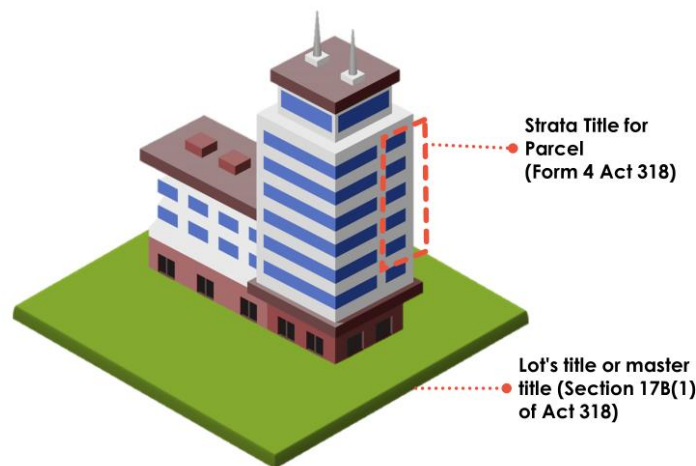


Figure 2. The Connection Between Strata Title and Lot's Title. Source: Author's Elaboration.

The requirement for unanimous consent to terminate a strata scheme, effectively dissolving individual ownership and enabling the transfer of lot, creates a significant obstacle (Crommelin et al., 2020). In such a scenario, even a minority of dissenting voices can thwart the attempt to proceed with the termination and subsequent redevelopment (Easthope et al., 2013). When a multitude of private owners have a stake in the resource, reaching a mutually agreeable decision becomes exceptionally challenging, often leading to neglect, deterioration, and underutilization of the property, thus creating a Tragedy of The Anticommons. In response to the increasing trend of urbanization, several jurisdictions globally have amended their strata legislations to optimize land utilization as seen in regions such as New South Wales, Australia, Singapore, and Hong Kong (Easthope et al., 2023; Hadi, 2014).

According to the DGLM's web portal www.jkptg.gov.my accessed on 15 January 2024, as of March 2022, Kuala Lumpur and Penang stand out as states with the highest number of registered strata titles in Peninsular Malaysia, following Selangor. Attempts to terminate strata ownership and redevelop several buildings in these states, including Desa Kudalari Condominium and Flat PKNS in Kg. Bharu, Kuala Lumpur, and Mahsuri Flat in Penang, have ultimately failed (Ashyiq, 2022; Bakri, 2019; JKPTG Persekutuan, 2020). This is due to challenges in the decision-making process and differences in interests and opinions, including disagreements over the settlement offered by the developer (JKPTG Persekutuan, 2020).

Research Methodology

This study conducted a comprehensive search for journal articles related to the termination of strata subdivisions in online databases, including Scopus, Emerald, Web of Science, and Google Scholar. Relevant articles were identified using keywords such as 'strata termination' and 'strata renewal'. Noteworthy author, Bill Randolph with an h-index of 22 and 77 published peer-reviewed articles, was identified. Among his works, an article co-authored with Laura Crommelin titled "*A New Pathway to Displacement: The Implications of Less Than Unanimous Strata Renewal Laws for Vulnerable Residents*" received the highest citation count in Scopus. This was further informed by exploring relevant academic literature using Connected Papers, a platform for visualizing connections between research articles. Analysis was based on shared citations and similar bibliographies. Articles that did not directly address the research

question were subsequently excluded from consideration. A total of 42 articles were identified as potentially relevant to address these research questions:

- 1) What are the key elements that contribute to the challenges in terminating the strata subdivision for urban redevelopment?
- 2) How to reduce the challenges contributed by these elements on the strata subdivision termination process?

The Connected Paper identified a total of 42 articles aligning with the study's objectives, as illustrated in 3 below. Irrelevant studies were excluded, such as those focused on technical building aspects, as they did not bear relevance to the focus of the research which delves into the legal frameworks and decision-making processes. Subsequently, the remaining 39 articles underwent a detailed screening process, targeting specific elements that contribute to challenges in strata subdivision termination for redevelopment. These articles underwent a thorough review at the full-text level to ensure a comprehensive examination and accurate findings. To facilitate the analysis, the researchers employed Atlas.ti software, utilizing systematic coding techniques to identify and categorize the relevant elements within the data. This software is instrumental in streamlining the process and enhancing the precision of the analysis (Friese, 2012).

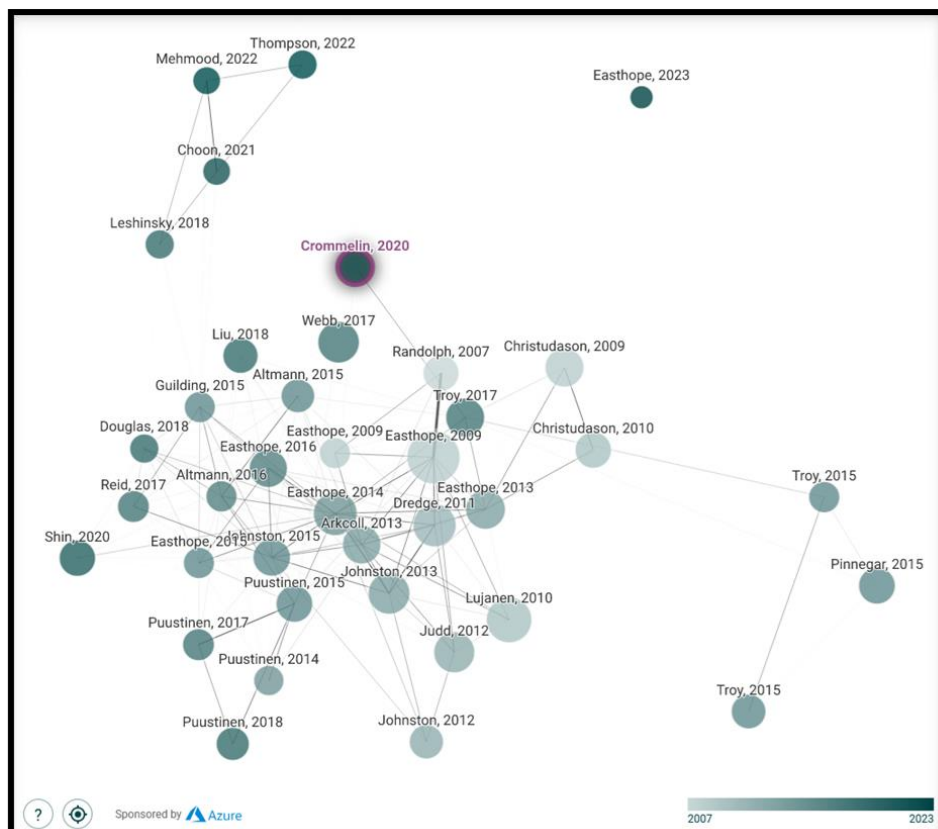


Figure 3. Strata Subdivision Termination Based on Connected Papers That Relate to Article ‘A New Pathway to Displacement: The Implications of Less Than Unanimous Strata Renewal Laws for Vulnerable Residents’ (Crommelin, 2020)

Drawing on the research findings, this study recommends potential solutions that prioritize the well-being of the strata community. These solutions aim to ensure that strata subdivision termination is implemented in a way that safeguards their interests and avoids the wastage of valuable resources. Subsequently, the findings were validated through interviews with five experts specializing in policy implementation of strata ownership and registration. These interviews followed a semi-structured format, allowing for in-depth discussions and insights (McIntosh & Morse, 2015). The selection of these experts was deliberate, based on their extensive knowledge and practical experiences in formulating and applying policies related to strata ownership.

Analysis Of Existing Approach That Contributes to The Tragedy of The Anticommons

Following the completion of the search phase, a total of 36 out of 42 articles were identified and included for further examination. The comprehensive overview of these selected articles, along with a summarized analysis of the key elements associated with strata subdivision termination are listed in

Table 1. The articles that are not related to this research are listed as ‘Not Related’.

Table 1
Summary of Articles Related to The Objective of Research
Elements of Strata Subdivision Termination

<i>No.</i>	<i>Author</i>	<i>Year of Publication</i>	<i>Engagement</i>	<i>Voting Determinant</i>	<i>Avenue for Grievances</i>	<i>Consent Threshold</i>	<i>Timeliness</i>	<i>Valuation of Property and Allocation of Sale Proceeds</i>
1	(Easthope et al., 2023)	2023	/	/	/	/	/	/
2	(Mehmood et al., 2022)	2022	/					
3	(Liat Choon et al., 2022)	2022	/					
4	(Thompson et al., 2022)	2022	/	/	/			

5	(Crommeli n et al., 2020)	2020			/			
6	(Shin et al., 2020)	2020	Not related					
7	(Parker, 2019)	2019	/	/	/		/	/
8	(Liu et al., 2018)	2018	/		/			
9	(Douglas & Goodman, 2018)	2018	/					
10	(T. Puustinen et al., 2018)	2018	/				/	
11	(Leshinsky et al., 2018)	2018	/	/	/			
12	(Webb & Webber, 2017)	2017	/		/			
13	(Troy et al., 2017)	2017	/	/		/		/
14	(Reid et al., 2017)	2017	/					
15	(T. Puustinen et al., 2017)	2017	/					
16	(Easthope & Randolph, 2016)	2016	/			/		
17	(Altmann, 2016)	2016	/					
18	(Altmann, 2015)	2015			/			/
19	(Easthope, 2015)	2015	/		/			
20	(Johnston & Too, 2015)	2015	/	/	/			
21	(T. L. M. Puustinen & Viitanen, 2015a)	2015	/		/			
22	(Troy, Easthope, et al., 2015)	2015	/	/	/	/	/	/

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23	(Pinnegar et al., 2015)	2015	/	/	/	/	/	/
24	(Troy, Randolph, et al., 2015)	2015	/	/	/	/	/	/
25	(Altmann, 2015)	2015	/					
26	(Guilding et al., 2015)	2015	/					
27	(Colic-Peisker et al., 2015)	2015	/	/	/			/
28	(Easthope et al., 2014)	2014	/		/	/		
29	(T. Puustinen & Lysnar, 2014)	2014	/					
30	(Easthope et al., 2013)	2013	/			/	/	/
31	(Renaë Johnston & Reid, 2013)	2013	Not related					
32	(Arkcoll et al., 2013)	2013	/					
33	(Judd et al., 2012)	2012	/	/	/	/	/	/
34	(Johnston et al., 2012)	2012	/					
35	(Dredge & Coiacetto, 2011)	2011	Not related					
36	(Christudas on, 2010)	2010	/	/	/	/		/
37	(Lujanen, 2010)	2010	/		/			
38	(Christudas on, 2009)	2009	/	/	/	/		/
39	(Easthope & Randolph, 2009)	2009	/	/				
40	(Randolph &	2007	/		/	/		/

	Easthope, 2007)			
41	(Guilding et al., 2005)	2005	/	
42	(Easthope, 2009)	2003	/	/

Following a thorough review of the research questions, the analysis of the articles listed in Table 1 is focused on identifying the core elements contributing to the challenges of strata termination for urban redevelopment. The examination of relevant literature revealed six key factors that significantly hinder successful termination processes. There are consent thresholds, engagements, allocation of sale proceeds, the timeline of the termination process, the avenue for grievances, and voting determinant. These elements are discussed and summarized in this section to provide a structured view of the discussions surrounding the termination of strata subdivisions, providing insights into the critical factors, and considerations put forth by the respective studies.

The literature review not only identified six key elements hindering strata termination but also explored potential solutions suggested within the reviewed articles. These solutions were presented alongside the identified elements, highlighting the connection between the challenges and proposed remedies, and subsequently answering the second research question. These identified solutions were then presented to the participating experts during the interviews. This step allowed for valuable insights into the applicability and effectiveness of the proposed solutions within the Malaysian context. Feedback from the experts served to validate the findings and assess the potential for successful implementation of these solutions in addressing the challenges of strata termination in Malaysia. This compilation facilitates a systematic and accessible reference point for researchers and stakeholders who are interested in the intricacies of strata subdivision termination.

Consent Threshold

The concept of consent threshold in the context of strata subdivision termination is essential in understanding the decision-making process (Easthope & Randolph, 2016). It refers to the level of agreement needed among strata owners during the Management Corporation (MC) meeting when discussing the potential termination of the property (Lin et al., 2022). However, it is known from the previous literature that a unanimous resolution can hinder the effort to terminate the scheme due to several reasons such as differences in interests and lack of knowledge among the strata residents when it comes to collective decision-making (Altmann, 2014; Arkcoll et al., 2013; Christudason et al., 2010; Easthope & Randolph, 2009; Ho & Gao, 2013; Puustinen & Viitanen, 2015). According to Christudason (2010), the investor-owners have different motivations for their property which is to gain more profit from the sale, in contrast with the owner-occupiers who are emotionally and socially attached to their property regardless of the price (Christudason, 2010).

Several countries such as Singapore and New South Wales, Australia have taken a forward approach to amend their regulations to allow majority consent to promote the termination and urban redevelopment (Crommelin et al., 2020). Urban redevelopment effort is known as a catalyst of a compact and sustainable city to cater to the increase of population in the urban areas. Therefore, there is a need to find an alternative approach to the consent

threshold for strata subdivision termination to facilitate and expedite urban redevelopment efforts (Johnston & Too, 2015).

Voting Determinant

The concept of "share unit" plays a central role in determining voting rights within strata schemes in several countries, including Malaysia, Australia, and Singapore (Ann Dupuis, 2010; Md Zan et al., 2018; Teo, 2023). This concept dictates both the entitlement of a strata unit to exercise voting rights and the proportion of contributions levied by the Management Corporation (MC) (Christudason, 2010). Strata legislations around the world employ various methods for calculating share units, including floor area basis, market value, or a combination of both (Teo, 2023). In Malaysia and Singapore, the share unit is based on floor area with fixed weightage factors (Colic-Peisker et al., 2015; Judd et al., 2012; Shukri & Maidin, 2010). Share unit is the "voting determinant" in a decision-making process, which refers to the criteria that dictate the allocation of votes among owners within a strata development, as elucidated by Teo in 2023. The primary objective of this practice is to ensure that decisions are made equitably, taking into account the perspectives of all stakeholders (Teo, 2023).

However, the share unit as a voting determinant of strata ownership is proven to be inadequate and prejudicial (Easthope et al., 2023). In Singapore and Malaysia, instead of using the valuation of the property based on the current market value of the property, the weighting factor of the share unit formula is fixed at a certain value (Teo, 2023). This approach may result in smaller units holding a disproportionately larger share or vice versa, primarily due to the substantial floor area grouping intervals (Ti, 2020). This discrepancy is particularly pronounced in mixed-use developments, contributing to an imbalance in voting rights (Altmann & Gabriel, 2018).

Given that the termination of a strata building necessitates a unanimous resolution achieved through a voting process, an unfair voting determinant can lead to inequitable opportunities for strata owners (Bakri et al., 2023; Thompson et al., 2022). Additionally, their property right is at risk of being denied particularly for individuals who are ineligible to vote due to various managerial and operational issues, such as outstanding maintenance fees.

Avenue for Grievances

Proprietors who have concerns regarding the termination process or outcome, such as inadequate allocation of sale proceeds, need to have a designated platform to address their grievances and disputes. This is to ensure their voices are heard and issues can be resolved effectively (Randolph & Easthope, 2007). In Australia, the grievances are laid out to the Land and Environment Court while in Singapore, the Strata Tribunal is used as the platform (Christudason, 2018; Ti, 2020). In this context, Malaysia solely relies on the civil court system, lacking any specialized tribunal or alternative avenue for addressing issues related to strata ownership disputes. The Strata Management Tribunal is exclusively focused on deliberating strata management and operations, as stipulated by the provisions outlined in the Strata Management Act 2013 (Act 757). This indicates a distinctive legal framework in Malaysia, where matters on strata ownership concerns are exclusively adjudicated through the broader civil court system, potentially leading to unique challenges and considerations compared to other countries with specific platforms for strata dispute resolution.

However, despite having a dedicated court to address land-related issues, New South Wales, Australia, has encountered prolonged waiting periods. This was evident in the case study of Macquarie Park, where the amended Strata Development Act 2015 was deemed

excessively slow and challenging to navigate (Easthope et al., 2023). The waiting period could cause the redevelopment effort to increase in cost over time and cause the majority who agreed to the termination to have to wait for their allocation of sale proceeds to be paid (Judd et al., 2012; Ti, 2022). This delay not only has financial implications for those involved but also underscores the potential challenges and drawbacks associated with the protracted legal processes in the context of strata redevelopment initiatives.

Timeline

The Strata Development Act 2015 in New South Wales is distinct from Singapore's Land Title (Strata) Act, notably in terms of the specific time frame outlined (Ti, 2022). Having a well-defined timeline in place is crucial when it comes to managing the termination of a strata subdivision (Pinnegar et al., 2015). It helps establish clear boundaries for each step of the process, ensuring that tasks and procedures do not unnecessarily extend beyond their intended duration. This time constraint is particularly important in the context of urban redevelopment, where various phases and activities need to be coordinated effectively. By adhering to a predefined timeline, stakeholders can ensure that the strata termination aligns smoothly with the larger redevelopment efforts, optimizing the overall progress and outcomes of the project.

A critical shortcoming of Act 318 is the absence of a defined timeframe for strata termination processes. This omission, as Christudason (2005) highlights, can lead to extended procedures, potentially causing emotional strain for all parties involved (Christudason, 2005). Property owners may face mounting anxiety and frustration as the fate of their property hangs in limbo. Developers seeking to acquire the land for redevelopment projects could experience delays and financial setbacks. This ambiguity can exacerbate tensions and discourage participation in the termination process.

Valuation of Property and Allocation of Sale Proceeds

Upon the termination and sale of a strata property, it is essential to distribute the generated funds fairly among the respective owners (Lai et al., 2018). This means that each owner should receive a portion of the sale proceeds that accurately reflects their rightful share based on their ownership stake in the property (Ti, 2020). Fair distribution ensures that no owner is unfairly disadvantaged or advantaged in the process (Christudason, 2009). It upholds the principle of treating all owners impartially and acknowledging their respective contributions to the property.

One critical hurdle in strata subdivision termination is the lack of standardized procedures for valuation and sale proceeds distribution. In Singapore, strata owners must collectively determine a fair allocation of sales proceeds (Crommelin, 2020). Guidelines in determining what constitutes adequate for them will help expedite the process, otherwise it can lead to extended negotiations and potential societal, economic, and political repercussions (Ti, 2020). Similarly, Malaysia's Act 318 remains silent on valuation methods and sale proceeds allocation during termination processes. This absence of clear guidelines creates uncertainty and potentially hinders parcel owners' approval of redevelopment proposals, despite the potential benefits of such initiatives.

Engagements

Strata subdivision termination for urban redevelopment may be initiated and facilitated by a third party such as a property developer to ensure that it can be well implemented. This is

because, selling the property collectively is more effective and gives a much better potential for the land to be redeveloped (Troy et al., 2015). To establish common ground and address concerns, effective engagements are crucial for disseminating accurate information and fostering meaningful discussions, especially in a multi-owned building (Douglas & Goodman, 2018). There must be a clear stipulation mandating proper engagements with relevant stakeholders, including parcel proprietors and the developer to influence open communication and collaboration throughout the process (Altmann, 2015).

The current termination process outlined in Act 318 in Malaysia follows a specific sequence. After the Management Corporation (MC) decides on a termination proposal with the required unanimous vote, an application for termination is submitted to the DLM. However, a key gap exists in the legislation. While Act 757 governs the voting process, neither Act addresses the crucial stage of engagement with the developer or project proponent proposing the redevelopment. In such settings, where multiple stakeholders are involved, open and transparent communication becomes paramount. This is particularly crucial when it comes to decision-making processes related to strata termination, a complex and impactful event for all owners involved (Johnston et al., 2012). By disseminating precise and relevant information, owners are better equipped to make informed decisions that align with their interests and the collective well-being of the strata community. Additionally, fostering meaningful discussions allows for the exchange of perspectives, concerns, and ideas, creating a space for collaborative decision-making

Proposed Solution: Statutory Reform

Building upon prior research, six critical elements concerning the termination of strata subdivisions were identified, followed by the development of amicable solutions. This section aims to explain these elements that influenced the challenges in terminating the strata subdivision for urban redevelopment and propose a solution that can mitigate the consequences of inequitable property rights among strata owners, thereby addressing the Tragedy of the Anticommons.

The consent threshold is the level of agreement by the strata owners for the termination proposal. In Malaysia, achieving successful strata subdivision termination for redevelopment hinges on securing unanimous consent from owners – both for dissolving the existing building ownership and transferring the land to a new owner. From previous research, there are suggestions to reduce the consent threshold from unanimous to majority. According to Hadi (2014), Malaysia can adopt en-bloc sales with majority approval, just like Hong Kong and Singapore, to make urban redevelopment efforts easier (Hadi, 2014). Zakiah (2016) echoes this sentiment, highlighting the escalating complexity of urban redevelopment due to the challenges of obtaining unanimous consent for terminating multi-owned strata buildings (Zakiah & Khadijah, 2016).

Countries in certain major regions have implemented reduced consent thresholds for terminating strata ownership, influenced by their specific legal and regulatory frameworks (Ti, 2022). For instance, in New South Wales, Australia, the Strata Schemes Development Act 2015 sets the threshold at a minimum of 75% agreement among strata owners (Crommelin et al., 2020; Troy et al., 2017). While in Singapore, through the Land Title (Strata) Act, the threshold is set at 80% to 90%, based on the age of the building. This approach has proved to be successful in reducing the gridlock that hinders the decision-making in terminating the strata subdivision, especially in Singapore which has seen the complete termination of nearly 70% of the total number of dilapidated strata buildings in the country between 1999 and

2007, following legislative reforms (Parliament of Singapore, 2007). Implementing a reduced consent threshold streamlines the process of obtaining agreement from individual owners, ultimately mitigating the risk of valuable resources remaining underutilized due to prolonged conflicts within the decision-making process.

The Federal Constitution emphasizes the fundamental property right, highlighting the need to safeguard this right for all individuals, irrespective of their financial circumstances. Furthermore, there is a notable concern regarding the use of share units as the primary determinant for voting (Bakri et al., 2023; Ti, 2020). This approach raises valid questions about its fairness and equity. Ensuring a fair and just process for property termination is essential in any legal framework. Act 318 should encompass a thorough and impartial voting procedure specifically tailored for this purpose. Therefore, it is imperative to revisit and refine this aspect of the voting process to ensure that it is truly representative and fair to all strata owners by implementing one strata ownership equal to one vote. By instituting these improvements, the integrity of the termination process can be enhanced and the principle of justice that underpins the property rights can be upheld. This comprehensive approach will ultimately contribute to a more balanced and equitable legal framework for property termination.

Establishing a proper avenue for addressing grievances is imperative, requiring a clear and efficient legislative framework. Strata owners expressing concerns about the termination process or the allocation of sale proceeds should have access to a dedicated platform for voicing their grievances. This may involve legal recourse through an institution like a Land Tribunal, equipped to provide informed advice and solutions (Randolph & Easthope, 2007). This approach can be implemented seamlessly since the tribunal for building maintenance and operational issues has already been established under Act 757 (Teo, 2023). This mechanism is essential to ensure that grievances are handled effectively without resorting to the complexities of a civil court. This crucial phase should be integrated into the termination process to guarantee its fairness and effectiveness (Douglas & Goodman, 2018). This step serves as a vital safeguard, ensuring that all parties involved have an opportunity for their concerns to be thoroughly addressed.

The termination process necessitates strict adherence to a predefined timeline, which all applicants, including the MC of the strata scheme and the processing authority, must follow diligently (Douglas & Goodman, 2018; Goodman & Douglas, 2010). For instance, the resolution outcome from the MC meeting regarding the termination decision must be promptly communicated to the authority within a two-week window. This ensures that no time is squandered, allowing for the subsequent steps to be set in motion promptly. Time is of paramount importance in shaping the future of the property, holding significant weight for both the strata owners and the developer, who bear financial and legal obligations for the land's development (Shaw, 2013). Therefore, upholding the stipulated timeline is crucial for expediting progress and realizing the collective vision for the property.

To uphold principles of justice, it is essential to ensure that the strata property is valued according to its current market value (Easthope et al., 2023; Parker, 2019). In this context, the sale proceeds should be directly distributed or awarded to individual parcel owners rather than being allocated to the Management Corporation (MC). This measure is crucial to uphold the principle of equity and to safeguard the interests of individuals affected by the termination process (Johnston et al., 2012). The legislation governing strata subdivision termination should explicitly state the requirement for a just and equitable distribution of sale proceeds to individual parcel owners in the event of ownership dissolution (Bakri et al., 2023). Hence, it is only equitable to provide an allocation of sale proceeds to the parcel

proprietors that takes into account both the value of the building and the land. The valuation of strata property should not be based on the share unit since this determinant factor is not correlated with the property's value in Malaysia. The valuation should be aligned with the property's actual market worth rather than relying on a potentially arbitrary share unit calculation (Ti, 2020). This will not only recognize the value of their property but also promote a just and balanced approach in such proceedings (Brugman, 2020). This inclusion in the legislation serves as a safeguard against any potential disparities and ensures that the termination process remains just and impartial.

For urban redevelopment, strata subdivision termination must be instigated by a third-party entity, such as a property developer. This proactive involvement is crucial for ensuring an efficient process, as selling the property en bloc proves to be a significantly more effective approach (Crommelin et al., 2020). This method holds greater potential for optimizing the redevelopment of the land. The initial stage involves the developer seeking approval from the Management Committee to present their termination and redevelopment proposal at a management meeting (Johnston & Too, 2015; Troy et al., 2017). This critical stage necessitates a well-defined engagement process to ensure all relevant information is shared transparently. Ample time should be provided for the MC to review the proposal and make an informed decision. A successful outcome hinges on negotiation and agreement on terms with the developer, followed by getting the required consent threshold from the MC. Effective engagement throughout this process empowers strata owners by providing them with the necessary knowledge to exercise their voting rights and make informed decisions about the future of their property. The summary of the proposed solutions tailored to the existing strata legislation in Malaysia is listed in Table 2.

Table 2

Summary of Proposed Solutions Based on the Elements of Strata Subdivision

No.	Key Elements of Strata Subdivision Termination	Existing Legislation in Malaysia	Proposed Solutions
1	Consent threshold	Unanimous resolution	Majority consent
2	Voting determinant	Share unit	Voting determinant based on strata ownership (one strata title equals one vote)
3	Avenue for Grievances	Civil court	Strata Title Tribunal
4	Termination timeline	No specific timeline	Create a specific timeframe for the strata subdivision termination process
5	Valuation of Property and Allocation of sale proceeds	No specific method for the allocation of sale proceeds	Valuation of strata property is to be referred on the current market value, and the sale proceeds should be allocated to the parcel owners
6	Engagements	No specific engagement process between strata	Create a specific engagement method

owners and project
proponents

Validation of the Findings

To verify the efficacy of the proposed solutions, a validation process was conducted involving experts in the field. This list of experts was derived through purposive sampling, and five respondents willingly participated in interviews. The aim is to ensure that the chosen participants contribute directly to addressing the research objectives, providing targeted and meaningful insights that align with the study's specific focus areas (Padros, 2021). The selection of respondents is based on relevant affiliations, areas of expertise, and professional experiences directly related to strata ownership, termination processes, and redevelopment. Furthermore, the decision to focus on respondents from Penang and Kuala Lumpur states was deliberate. These locations encompass Desa Kudalari Condominium and Mahsuri Flat, both documented as unsuccessful attempts at strata subdivision termination as reported by (DGLM, 2020). By including individuals familiar with these specific cases, the research aims to capture valuable insights into the factors contributing to such failures.

To validate the initial research findings, semi-structured interviews were conducted with this panel of experts. Initial contact was made via WhatsApp, where permission to participate in the interviews was successfully obtained. Table 3 provides an overview of the experts' profiles and areas of specialization. The interviews provided valuable insights that are presented in Table 4. By incorporating expert feedback on the effectiveness of the proposed solutions, this validation process strengthens the research's credibility and ensures the practical applicability of the recommendations.

Table 3

Respondent's Background

Respondent	R1	R2	R3	R4	R5
Gender	Female	Female	Female	Male	Male
Affiliation	Strata and Stratum Department, DGLM Federal	Strata and Stratum Department, DGLM Federal	Former Strata Division, DLMO Penang	Former Policy and Consultancy Department, DGLM Federal	Strata Division, DLMO Kuala Lumpur
Area of Expertise	Strata ownership and development	Strata ownership and registration of land ownership	Strata ownership and development	Land ownership and registration	Strata ownership and development
Working Experience	15 years	20 years	15 years	20 years	16 years

The interviews with strata policy experts (as detailed in Table 3) yielded valuable insights that validate the research findings and strengthen the proposed solutions. Participants actively shared their experiences, perspectives, and recommendations to address the challenges associated with the "Tragedy of the Anticommons" within the context of strata

termination. These expert recommendations aligned seamlessly with the research, highlighting existing issues in the legislation governing the termination process. Notably, the identified elements that influence termination success resonated strongly with the respondents. Experts believe these solutions can mitigate the negative impact of these elements and facilitate smoother redevelopment efforts. The proposed solutions not only address the challenges of strata termination but also contribute to the long-term sustainability of urban areas. By promoting optimal utilization of finite land resources, these solutions advocate for a more efficient and responsible approach to development. This focus on resource conservation fosters urban resilience, ensuring a more sustainable future for cities.

Table 4
Validation by the Experts

The Effectiveness of the Proposed Solution to Circumvent the Impact of The Tragedy of the Anticommons in the Strata Subdivision Termination Process	
Consent Threshold	<p><i>R2: "No doubt that the threshold in the Strata Title Act presently poses challenges to the process of strata subdivision termination"</i></p> <p><i>R3: "Should be reduced, only if the votes were presented by the majority of unit owners not by the aggregate of unit share, with the consideration of protection policy for the minorities has taken place (minority example: the elderly owner, OKU owner, or children's trust unit owner)"</i></p> <p><i>R4: "There is a need to reduce the threshold... but need to cater for the disagreeing parties"</i></p> <p><i>R5: "Majority consent is more suitable. We should observe other countries' legislation to make our act better. However, need to know how much thresholds can be considered fair and just"</i></p>
Voting Determinant	<p><i>R2: "The vote should be based on a 'one title = one vote' system rather than on a share unit basis"</i></p> <p><i>R4: "Need to differentiate other ownership as well if the building is mixed-use development"</i></p>
Avenue for Grievances	<p><i>R3: "There should be no ill-intention. Must facilitate all parties. Not everyone can afford to bear the cost of court proceedings"</i></p> <p><i>R5: "Parcel owners should have a designated avenue for addressing grievances in the event of strata subdivision termination, as opposed to the civil court"</i></p>
Termination timeline	<p><i>R1: "Relevant timeline is crucial. This is to ensure it synchronizes effectively with future land redevelopment initiatives"</i></p>

	<i>R3: "Strongly suggest that the proposal to include timeline for the termination process"</i>
Allocation of sale proceeds	<i>R4: "Owners should receive fair allocation of sale proceeds, either at a one-to-one ratio (meaning: one property taken should result in the exchange for another property) or at the current market value of their parcel, whichever is higher"</i>
Engagements	<i>R2: "The termination process should involve relevant engagement phases"</i> <i>R4: "Engagement is the heart of negotiation...Not necessarily distinct (the phase), as long as fit for purpose"</i> <i>R5: "It can include several phases for example: Phase 1: presenting the termination and redevelopment proposal; Phase 2: discussion and counter-proposal; and Phase 3: decision-making process"</i>

Conclusion

This research presents a significant shift in the paradigm of strata ownership decision-making. By advocating for a framework that empowers collective action, the study challenges the current scenario where a minority can dictate the fate of the entire property. This is particularly crucial to avoid the "Tragedy of the Anticommons," where individual objections lead to property neglect and ultimately, collective loss. However, it's important to emphasize an inclusive approach. Reforming regulations surrounding strata termination, as stipulated in Act 318, requires a comprehensive review that considers not only the Act itself but also all related regulations impacting strata ownership and urban development. This research serves as a springboard for policymakers, laying the groundwork for comprehensive legislative reviews to enhance strata ownership regulations.

Furthermore, the research presents a critical alternative to traditional approaches. It goes beyond the limitations of the conventional consent threshold or forced acquisition methods for strata termination. Instead, it proposes new solutions that can facilitate more collaborative and inclusive decision-making processes. The insights gleaned from this study can inform strategic decision-making by both policymakers and urban planners. By promoting a more nuanced understanding of strata ownership issues, the research paves the way for the development of effective and sustainable approaches to navigating the complexities of urban renewal.

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References

- Altmann, E. (2014). Apartments, Co-ownership and Sustainability: Implementation Barriers for Retrofitting the Built Environment. *Journal of Environmental Policy and Planning*, 16(4), 437–457. <https://doi.org/10.1080/1523908X.2013.858593>
- Altmann, E. (2015). Industry professionalisation of strata title managers: What are the implications for governance? *Property Management*, 33(2). <https://doi.org/10.1108/PM-07-2014-0030>
- Altmann, E. (2016). Small scale housing unit developments: Implications for strata manager market penetration. *Property Management*, 34(3). <https://doi.org/10.1108/PM-06-2015-0025>
- Altmann, E., & Gabriel, M. (2018). *Multi-Owned Property in the Asia-Pacific Region Rights, Restrictions and Responsibilities*.
- Ann Dupuis. (2010). Share Unit. In *Multi-owned Housing - Law, Power and Practice*.
- Arkkoll, K., Guilding, C., Lamminamki, D., Mcmanus, L., & Warnken, J. (2013). Funding common property expenditure in multi-owned housing schemes. *Property Management*, 31(4), 282–296. <https://doi.org/10.1108/PM-09-2012-0031>
- Ashyiq, M. (2022). *Isu Pengambilan Tanah Kg Sungai Baru: Kasihanilah Kami-Penduduk. Harian Metro*.
- Azmi, I. M. (2012). Tragedy of the commons: commercialization of cultural heritage in Malaysia Cultural Heritage Tourism In Malaysia. In *Queen Mary Journal of Intellectual Property* (Vol. 2, Issue 1). <http://thestar.com.my/columnists/story.asp?file=/2010/7/8/columnists/putiklada/6615843&se>
- Bakri, I. (2019). The Redevelopment Pandemonium of Stratified Building: A Case Study of Desa Kudalari Condominium, Kuala Lumpur. *Land Journal*, 3(1), 59–68.
- Bakri, I., Samsudin, S., & Muin, Z. A. (2023). A Review of Share Unit Impact as A Voting Determinant for Strata Subdivision Termination in Malaysia: A Comparison with Singapore. *International Journal of Law, Government and Communication (IJLGC)*, September 2023.
- Benjamin, R. W. (2012). *The new limits of education policy: avoiding a tragedy of the commons* (1st ed.). Edward Elgar Publishing Limited.
- Bezin, E., & Ponthière, G. (2019). The tragedy of the commons and socialization: Theory and policy. *Journal of Environmental Economics and Management*, 98. <https://doi.org/10.1016/j.jeem.2019.102260>
- Brugman, J. (2020). The Politics and Practices of Apartment Living. *Urban Policy and Research*, 38(4), 374–376. <https://doi.org/10.1080/08111146.2020.1809067>
- Cebeci, A. F., Ince, H., & Mercan, M. A. (2020). The intrinsic fallacy of market mechanism and private property rights in alleviating the tragedy of the commons. *Applied Economics*, 52(33), 3629–3636. <https://doi.org/10.1080/00036846.2020.1716938>
- Christudason, A. (2005). Impediments to the success of collective sales: Lessons for the property consultant. *Property Management*, 23(4), 271–285. <https://doi.org/10.1108/02637470510618415>
- Christudason, A. (2009). Property rights: Achieving a fine balance in collective sales of strata developments in Singapore. *International Journal of Law in the Built Environment*, 1(1), 26–41. <https://doi.org/10.1108/17561450910950232>

- Christudason, A. (2010). Legal framework for collective sale of real estate in Singapore: Pot of gold for investors? *Journal of Property Investment and Finance*, 28(2), 109–122. <https://doi.org/10.1108/14635781011024854>
- Christudason, A. (2018). *Termination Legislation for Multi-owned Properties in Singapore: Righting the Wrongs: Multi-Owned Property in the Asia-Pacific Region View project*. <https://www.researchgate.net/publication/351019112>
- Christudason, A., Kenna, P., & Lujanen, M. (2010). Legal challenges in ensuring regular maintenance and repairs of owner-occupied apartment blocks. In *International Journal of Law in the Built Environment* (Vol. 2, Issue 2, pp. 178–197). <https://doi.org/10.1108/17561451011058807>
- Colic-Peisker, V., Ong, R., & Wood, G. (2015). Asset poverty, precarious housing and ontological security in older age: an Australian case study. *International Journal of Housing Policy*, 15(2), 167–186. <https://doi.org/10.1080/14616718.2014.984827>
- Crommelin, L., Easthope, H., Troy, L., & Randolph, B. (2020). A new pathway to displacement? The implications of less-than-unanimous strata renewal laws for vulnerable residents. *Australian Planner*, 56(4), 261–269. <https://doi.org/10.1080/07293682.2020.1854798>
- Deese, R. S. (2019). Transcending the Tragedy of the Commons. In *Climate Change and the Future of Democracy, Environmental Challenges and Solution* (pp. 71–85). https://doi.org/10.1007/978-3-319-98307-3_5
- Douglas, K., & Goodman, R. (2018). Addressing conflict within an owner’s corporation. In *Multi-Owned Property in the Asia-Pacific Region: Rights, Restrictions and Responsibilities* (pp. 213–230). Palgrave Macmillan. https://doi.org/10.1057/978-1-137-56988-2_12
- Dredge, D., & Coiacetto, E. (2011). Strata title: Towards a research agenda for informed planning practice. *Planning Practice and Research*, 26(4), 417–433. <https://doi.org/10.1080/02697459.2011.582383>
- Easthope, H. (2009). *The fourth tier of governance: managing the future of our cities*.
- Easthope, H. (2015). The role of retirees in residential “private governments.” *Journal of Urban Affairs*, 37(3), 311–326. <https://doi.org/10.1111/juaf.12138>
- Easthope, H., Crommelin, L., Gillon, C., Pinnegar, S., Ruming, K., & Liu, S. (2023). Redeveloping the compact city: the challenges of strata collective sales. *Journal of Property, Planning and Environmental Law*. <https://doi.org/10.1108/JPEL-04-2023-0016>
- Easthope, H., Hudson, S., & Randolph, B. (2013). Urban renewal and strata scheme termination: Balancing communal management and individual property rights. *Environment and Planning A*, 45(6), 1421–1435. <https://doi.org/10.1068/a4598>
- Easthope, H., & Randolph, B. (2009). Governing the compact city: The challenges of apartment living in Sydney, Australia. *Housing Studies*, 24(2), 243–259. <https://doi.org/10.1080/02673030802705433>
- Easthope, H., & Randolph, B. (2016). Experiencing density: The implications of strata titling for urban renewal in Australian cities. In *Urban Regeneration in Australia: Policies, Processes and Projects of Contemporary Urban Change*. <https://doi.org/10.4324/9781315548722>
- Easthope, H., Warnken, J., Sherry, C., Coiacetto, E., Dredge, D., Guilding, C., Johnston, N., Lamminmaki, D., & Reid, S. (2014). How property title impacts urban consolidation: A life cycle examination of multi-title developments. *Urban Policy and Research*, 32(3), 289–304. <https://doi.org/10.1080/08111146.2014.899210>

- Goodman, R., & Douglas, K. (2010). Life in a master planned estate community and lifestyle or conflict and liability? *Urban Policy and Research*, 28(4), 451–469. <https://doi.org/10.1080/08111146.2010.528743>
- Guilding, C., Lamminmaki, D., & Warnken, J. (2015). Preparing strata titled communities for climate change: An empirical examination. *Property Management*, 33(4), 308–329. <https://doi.org/10.1108/PM-10-2014-0040>
- Guilding, C., Warnken, J., Ardill, A., & Fredline, L. (2005). An agency theory perspective on the owner/manager relationship in tourism-based condominiums. *Tourism Management*, 26(3), 409–420. <https://doi.org/10.1016/j.tourman.2003.11.021>
- Heller, M. (2013). *The Tragedy of the Anticommons: A Concise Introduction and Lexicon*. <http://dlc.dlib.indiana.edu>
- JKPTG Persekutuan. (2020). *Kajian Keperluan Penamatan dan Pembangunan Semula Skim Bangunan Berstrata*. In ISBN 978-967-18650-0-2 (Vol. 1).
- Johnston, N., Guilding, C., & Reid, S. (2012). *Examining Developer Actions That Embed Protracted Conflict And Dysfunctionality In Staged Multi-Owned Residential SCHEMES*. <https://www.researchgate.net/publication/268206035>
- Johnston, N., & Too, E. (2015). Multi-owned properties in Australia: a governance typology of issues and outcomes. *International Journal of Housing Markets and Analysis*, 8(4), 451–470. <https://doi.org/10.1108/IJHMA-02-2015-0005>
- Judd, S., Randolph, B., & Easthope, H. (2012). *Governing the compact city: the role and effectiveness of strata management*.
- Lai, L. W. C., Chau, K. W., & Cheung, P. A. C. W. (2018). Urban renewal and redevelopment: Social justice and property rights with reference to Hong Kong's constitutional capitalism. *Cities*, 74, 240–248. <https://doi.org/10.1016/j.cities.2017.12.010>
- Leshinsky, R., Newton, P., & Glackin, S. (2018). The unintended consequences of strata title for urban regeneration. In *Multi-Owned Property in the Asia-Pacific Region: Rights, Restrictions and Responsibilities*. https://doi.org/10.1057/978-1-137-56988-2_2
- Liat C., T., Wee Vern, T., Kam Seng, L., Liang, T. M., Bin Ujang, M. U., Azri, S. binti, Ai Chin, T., & Kathitasapathy, S. A. L. (2022). Willingness of the owners in the integrated development to establish the subsidiary management corporation. *Property Management*, 40(3), 370–387. <https://doi.org/10.1108/PM-04-2021-0025>
- Lin, C. L., Chan, E. H. W., & Chiang, W. H. (2022). Urban renewal governance and manipulation of plot ratios: A comparison between Taipei, Hong Kong and, Singapore. *Land Use Policy*, 119. <https://doi.org/10.1016/j.landusepol.2022.106158>
- Liu, E., Easthope, H., Ho, C., & Buckle, C. (2018). Diversity and participation in private apartment buildings: a review of the literature. *Geographical Research*, 56(4), 401–409. <https://doi.org/10.1111/1745-5871.12282>
- Lujanen, M. (2010). Legal challenges in ensuring regular maintenance and repairs of owner-occupied apartment blocks. *International Journal of Law in the Built Environment*, 2(2), 178–197. <https://doi.org/10.1108/17561451011058807>
- McIntosh, M. J., & Morse, J. M. (2015). Situating and constructing diversity in semi-structured interviews. *Global Qualitative Nursing Research*, 2. <https://doi.org/10.1177/2333393615597674>
- Md Zan, R., Nur, S., Roslan, A., Mustafa, K., & Senawi, A. (2018). Establishment of share unit formula for strata residential buildings and its implication to buyer and unit owner. In *International Journal of Engineering & Technology* (Vol. 7, Issue 2). www.sciencepubco.com/index.php/IJET

- Mehmood, H. U., Ujang, U., Azri, S., & Choon, T. L. (2022). CONCEPTUAL DOMAIN MODEL FOR MAINTENANCE MANAGEMENT OF HIGH-RISE RESIDENTIAL STRATA. *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives*, 48(4/W3-2022), 77–82. <https://doi.org/10.5194/isprs-archives-XLVIII-4-W3-2022-77-2022>
- Padros, C. V. (2021). *Doing Rapid Qualitative Research* (Alysha Owen, Ed.). SAGE Publication Ltd.
- Parker, D. (2019). Compulsory property acquisition for urban densification. *Pacific Rim Property Research Journal*, 25(2), 175–176. <https://doi.org/10.1080/14445921.2019.1643276>
- Pinnegar, S., Randolph, B., & Freestone, R. (2015). Incremental urbanism: Characteristics and implications of residential renewal through owner-driven demolition and rebuilding. *Town Planning Review*, 86(3), 279–301. <https://doi.org/10.3828/tpr.2015.18>
- Puustinen, T. L. M., & Viitanen, K. J. (2015a). Infill Development on Collectively Owned Residential Properties: Understanding the Decision-making Process – Case Studies in Helsinki. *Housing, Theory and Society*, 32(4), 472–498. <https://doi.org/10.1080/14036096.2015.1053979>
- Puustinen, T., & Lysnar, P. (2014). The Time for Intensity? Governance And Decision-Making in Relation to Major Repairs In Multi-Owned Residential Buildings In Finland And New Zealand. *Pacific Rim Real Estate Society* www.finlex.fi/fi/laki/kaannokset/2009/en20091599.
- Puustinen, T., Pennanen, K., Falkenbach, H., Arvola, A., & Viitanen, K. (2017). Financing major repairs in apartment buildings through infill development: Exploring views and benefit requirements of the owner-occupiers. *Property Management*, 35(5), 508–527. <https://doi.org/10.1108/PM-08-2016-0045>
- Puustinen, T., Pennanen, K., Falkenbach, H., & Viitanen, K. (2018). The distribution of perceived advantages and disadvantages of infill development among owners of a commonhold and its' implications. *Land Use Policy*, 75, 303–313. <https://doi.org/10.1016/j.landusepol.2018.03.051>
- Ram-Tiktin, E. (2018). The Tragedy of the Commons and Population Health: The State's Intervention in an Individual's Actions and Choices from a Capability Perspective. *Journal of Human Development and Capabilities*, 19(4), 438–455. <https://doi.org/10.1080/19452829.2018.1471672>
- Randolph, B., & Easthope, H. (2007). 'Governing the Compact City': The governance of strata title developments in Sydney. *Paper Prepared for the 2007 ENHR International Conference, Sustainable Urban Areas, Rotterdam*.
- Reid, S., Lloyd, K., O'Brien, W., & Guilding, C. (2017). Power, Ethopolitics and Community Relations: Complexities of Living in Multi-owned Properties. *Housing, Theory and Society*, 34(4), 439–457. <https://doi.org/10.1080/14036096.2017.1281162>
- Renaie Johnston, N., & Reid, S. (2013). Multi-owned developments: A life cycle review of a developing research area. *Property Management*, 31(5), 366–388. <https://doi.org/10.1108/PM-01-2013-0003>
- Shaw, K. (2013). Australia's Unintended Cities: The Impact of Housing on Urban Redevelopment. *Urban Policy and Research*, 31(3), 379–383. <https://doi.org/10.1080/08111146.2013.807003>

- Shin, J., Rajabifard, A., Kalantari, M., & Atazadeh, B. (2020). Applying BIM to support dispute avoidance in managing multi-owned buildings. *Journal of Computational Design and Engineering*, 7(6). <https://doi.org/10.1093/jcde/qwaa057>
- Shukri, I. M., & Maidin, A. J. (2010). *Malaysian strata titles: law and procedure*. Sweet & Maxwell Asia.
- Sim, L.-L., Lum, S.-K., & Choo Malone-Lee, L. (2002). Property rights, collective sales and government intervention: averting a tragedy of the anticommons. In *Habitat International* (Vol. 26).
- Susanne Friese. (2012). *Qualitative Data Analysis with ATLAS.ti*. SAGE Publication Ltd.
- Hadi, T. S. K. (2014). *Cadangan En Bloc Sales Di Semenanjung Malaysia Dan Perbandingannya Dengan Singapura Dan Hong Kong*. In *Jurnal Pentadbiran Tanah* (Vol. 4, Issue 1).
- Teo Keang Sood. (2023). *Strata Title in Singapore and Malaysia* (7th ed.). LexisNexis.
- Thompson, S. E. L., Easthope, H., & Davison, G. (2022). Including the majority: Examining the local social interactions of renters in four case study condominiums in Sydney. *Journal of Urban Affairs*, 1–20. <https://doi.org/10.1080/07352166.2022.2045869>
- Ti, E. S. (2020). Towards fairly apportioning sale proceeds in a collective sale of strata property. *University of New South Wales Law Journal*, 43(4). <https://doi.org/10.53637/bbwt2920>
- Ti, E. S. (2022). Strata Plan Cancellations In Australasia: A Comparative Analysis Of Nine Jurisdictions. *Monash University Law Review*, 48(1). <https://www.stuff.co.nz/the-press/4934918/Young-Kiwis-greatest-fear>
- Troy, L., Easthope, H., Randolph, B., & Pinnegar, S. (2015). *Renewing the Compact City Interim Report City Futures Research Centre* *Renewing the Compact City: Interim Report*. www.cityfutures.net.au
- Troy, L., Easthope, H., Randolph, B., & Pinnegar, S. (2017). 'It depends on what you mean by the term rights': strata termination and housing rights. *Housing Studies*, 32(1). <https://doi.org/10.1080/02673037.2016.1171827>
- Troy, L., Randolph, B., Crommelin, L., Easthope, H., & Pinnegar, S. (2015). Economically viable and socially sustainable approaches to urban redevelopment Executive summary *Renewing the Compact City*. In *City Futures Research Centre*. www.cityfutures.net.au
- Webb, B., & Webber, S. (2017). The implications of condominium neighbourhoods for long-term urban revitalization. *Cities*, 61, 48–57. <https://doi.org/10.1016/j.cities.2016.11.006>
- Williams, J. T. (1991). Real estate development as an option. *The Journal of Real Estate Finance and Economics*, 4(2). <https://doi.org/10.1007/BF00173124>
- Yamada, A., & Yoshihara, N. (2008). Mechanism design for a solution to the tragedy of commons. *Review of Economic Design*, 11(4), 253–270. <https://doi.org/10.1007/s10058-007-0035-2>
- Zakiah, S., & Khadijah, H. (2016). The En Bloc Sale mechanism as a method of strata scheme termination and urban renewal: a review. *Sustainable Development and Planning VIII*, 1, 381–392. <https://doi.org/10.2495/sdp160321>