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## **LATE STRATA TITLES DELIVERY: INSIGHTS AND IMPACT TO HIGH RISE HOUSING DEVELOPMENT**

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### **Abstract**

Malaysia with its booming property development contributes consistently to the growing national gross domestic product (GDP) and economic growth. With the primary driver of urbanization, the property industry has staggeringly changed from horizontal to vertical, giving purpose to the necessity of implementing the concept of strata title in high-rise development. However, as the legislation related to strata title and housing development has yet to perfect itself, the current form does not truly balance the interest of all stakeholders. This paper intends to surface the conundrum to a strata scheme developer if a strata title is not delivered within 36 months as stipulated in the housing development legislation. The research will adopt multiple case concept comparing and contrasting five chosen strata property developments in Johor; implementing a qualitatively driven mixed method approach. The questionnaire instruments will be used to collect data and the instrument of interview will be employed on subject matter expert to validate the findings. The research will demonstrate that the delay in strata titles for the case study projects is in fact a common problem through the questionnaire. Then the federal government policy lawmakers will be interviewed to validate the global findings and deliberate comments and suggestions on possible ways to improve the current system. The suggestion of issuing a temporary strata title will be a potential solution explored during the questionnaire and interview process.

**Keyword:** Strata Title, High-Rise, Housing Development, Developer, Purchaser, Impact

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## **INTRODUCTION**

The trade-to-GDP ratio of Malaysia, which has averaged above 130% since 2010, makes it one of the most open economies in the world. Since then, Malaysia's economy has been on an upward trend, averaging 5.4% growth and the World Bank predicts that it will transition to a high-income economy by 2024 (Bank, 2021). The construction industry, according to the Department of Statistics Malaysia (DOSM), is a significant contributor to Malaysia's GDP, with building construction being the most important sub-sector. DOSM also documented that this industry has consistently contributed between 4% and 5% of GDP lead by Kuala Lumpur, Selangor and Johor especially from 2015 to 2020 (Department of Statistics Malaysia, 2021).

The construction industry's consistent GDP contribution was generated by the ever growing and evolving property development. The Valuation & Property Service Department (NAPIC) reported that in the last 6 years from 2016 to 2021, there was a consistent transaction in the residential property nationally with a minimum of RM65 billion to RM76 billion, which is 51% of the overall property market transactions (NAPIC, 2021, 2022). The Ministry of Housing and Local Government (KPKT) further strengthen the fact with consistently renewing and approving new Advertising Permit and Developer License (APDL) in the range of minimum 2159 to maximum 3050 application between 2016 to 2019 (KPKT, 2019).

In retrospect, the twentieth century wrought by the destruction of two world wars and concurrent scarcity of land, sparked rapid development and an upward trend in urbanisation all over the world, including Malaysia (Hussin, 2006). Rapid urbanisation has resulted in the prevalent use of planning procedures in industrialized countries that promotes the housing of growing urban populations in higher density multiunit housing. (Easthope & Randolph, 2016). Malaysia's urban population has recorded increased from around 66% in 2004 to 77% in 2020 over the last fifteen years. Its expansion is anticipated to continue as people move from rural to urban regions owing to the economy and jobs, and as agriculture gives way to industry and services (O'Neill, 2022).

Abdul Ghani and Lee (2015) highlighted the housing industry has evolved from a basic shelter to advances in design and construction, with features such as a gated and guarded community, state-of-the-art lifestyle clubhouse facilities, lush and green landscaping, smart home system and even more green building. This new vertical development trend also known as high-rise development has coincided with the emergence and evolution of the strata scheme development concept. According to Ta (2009), the concept of high-rise living was introduced in Malaysia as early as the 1970s, with Penang having one of the earliest high-rises known as Rifle Range. A strata scheme is a sort of property development in which a building or plot of land is subdivided into pieces

with their own strata titles (Nurul Sal Shabila Izanda, 2020). Strata scheme developments can take many systems, including master planned estates with unique lifestyle, gated communities, retirement villages, unit complexes apartment buildings and rising number of commercial premises and mixed residential (Altmann, 2014).

Strata title instead is a title document issued by the land administrator for the entire parcels of a subdivided multi-story building representing the unit or home purchased under the strata scheme (S.N et al., 2010). It is a kind of proprietorship designed for multi-level apartment buildings and horizontal subdivisions with common areas (Hashim et al., 2018). This title manuscript is a document that confirms ownership as a registered proprietor and includes all important legal information that confers an indefensible title that allows the owner to engage in any property dealings recognised by the National Land Code 2020, Act 828 (NLC 2020), such as leasing, mortgaging, transferring, and other legalized operations (Choon et al., 2016).

In a Developer's point of view, high rise strata scheme development is well preferred as it offers more value per square feet use of land. In addition, stratified property development can maximize the density within the allowable planning standards which mathematically allows more units to be built vertically on a lesser footprint of land compared to building horizontally with more usage of land (Zan et al., 2018). This conceptual approach obviously commercialises the concept of land scarcity. However, this is the fundamental motto of most Developers, where their sole purpose has always been to deliver the greatest product possible to their Purchasers with the lowest cost incurred.

Housing image in Malaysia has changed substantially over the previous decade as a result of changes in buyer preferences, socioeconomic considerations, technological improvement, and a rise in the level of education and revenue among urbanites. (Abdul Ghani & Lee, 2015). Lifestyle is one of the key reasons why people prefer vertical living (Aziz et al., 2014) and it's a unique property that has better potential value than landed property (Soebiyah et al., 2017). These strata properties are very dominant as it was reported more than 20% of Malaysians (Tan Wee Vern et al., 2019) or approximately 26% of Peninsular Malaysia (Buang, 2017) corresponding to over 6 million tax payers are living in strata properties by the year 2018.

The main objective of this study is to identify the potential causes of delay experienced in the strata title process and showcase the impact it imposes to a Developer

## **LEGISLATION HISTORY**

A strata property development in Malaysia is governed by the following legislations; The Town and Country Planning Act 1976, Act 172 (TCPA 1976) as the main planning reference; Housing Development (Control and Licensing) Act 1966, Act 118 (HDA 1966) and its supporting legislation Housing Development (Control and Licensing) Regulations 1989 (HDR 1989), Housing Development (Housing Development Account) Regulations 1991 (HDA 1991), Housing Development (Tribunal for Homebuyer Claims) Regulations 2002 (HDT 2002) and Housing Development (Compound of Offences) Regulations 2002 (HDC 2002). These are the major legislation that is being used in this industry to regulate licensing for the business of housing development and protection of Purchaser's interest.

On strata front, there are the main legislations Strata Title Act 1985 (STA 1985) and Strata Management Act 2013 (SMA 2013); supported by Strata Management (Maintenance and Management) Regulation 2015 (SMM 2015), Strata Management Tribunal Regulations 2015 (SMT 2015) and Strata Management Compound Regulations 2019 (SMC 2019).

Since the maiden STA 1985 was introduced as the principal Act, various amendments were introduced to solve the existing issues at hand and preparing for the evolving strata development to ensure constant improvement to the legislations (Tan Liat Choon, 2016). The first amendment was the Strata Titles Act (Amendment) 1990 (Act A753) prescribed on February 23<sup>rd</sup>, 1990. Subsequently, the Strata Titles Act (Amendment) 1996 (Act A951) was employed on August 2<sup>nd</sup>, 1996. Then, Strata Titles Act (Amendment) 2001 (Act A1107) was enacted on December 1<sup>st</sup>, 2001. Next was the Strata Titles Act (Amendment) 2007 (Act A1290) implemented on April 12<sup>th</sup>, 2007. Following that was the Strata Titles Act (Amendment) 2013 (Act A1450) that came into force on June 1<sup>st</sup>, 2015 and the most current is the Strata Titles Act (Amendment) 2017 (A1518) decreed on January 1<sup>st</sup>, 2017, which became the sixth amendment.

With reference to the series of amendments, the Strata Title Amendment Act A1450 launched the most significant concept change that has a profound impact to Developers which is the decree to issue strata title upon vacant possession (VP) to Purchasers. The Act A1450 was designed in the spirit of providing the Purchaser it's indefensible title upon key collection.

Similarly, the Housing Development (Control and Licensing) Act 1966 (Act 118) (HDA 1966) is the primary Act; which provides for the control and licensing of the business of housing development in Peninsular Malaysia. Since its enactment on August 29<sup>th</sup>, 1969, this Act has undergone six revisions, with the most recent revision being published in 2012 (Tan & Partners, 2016). HDA 1966 when first gazetted was instead named as The Housing Developers (Control and

Licensing) Act 1966 until the amendment in 2002, where the name was changed as it is today.

Upon the enactment of the primary HDA 1966, the first amendment was Housing Developers (Control and Licensing) (Amendment) Act 1972 (Act 116) enforced on April 4<sup>th</sup>, 1972. Subsequently, it was amended again to Housing Developers (Control and Licensing) (Amendment) Act 1977 (Act A402) implemented on June 10<sup>th</sup>, 1977. Then came Housing Developers (Control and Licensing) (Amendment) Act 1988 (A703) established on December 1<sup>st</sup>, 1988. This was a major milestone for the legislation as it introduced the Housing Development Account (HDA) concept in Section 7A as part of the license requirements. This was a major step in protecting Purchaser's interest as all monies collected by the Developer must be banked into the HDA governed by Financial Institution and any withdrawal has to be authorised by regulations made under this Act.

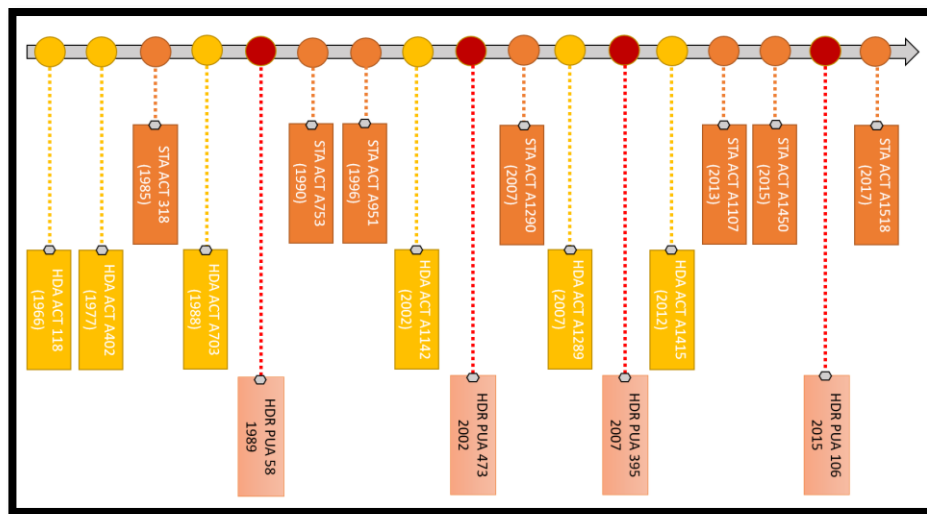
The next amendment came into force 14 years later on December 1<sup>st</sup>, 2002 with the new title Housing Development (Control and Licensing) (Amendment) Act 2002 (A1142). Following that was the Housing Development (Control and Licensing) (Amendment) Act 2007 (A1289) empowered on April 12<sup>th</sup>, 2007. The most recent amendment, which is the 6<sup>th</sup> amendment came into force on June 1<sup>st</sup>, 2015, in the form of Housing Development (Control and Licensing) (Amendment) Act 2012 (A1415).

Supporting HDA 1966 was HDR 1989. This legislation was replaced by the Housing Development (Control and Licensing) (Amendment) Regulations 2002 which came into force on December 1<sup>st</sup>, 2002. This new regulation essentially overhauled the standard sale and purchase agreements (SPA) and introduced prescribed contracts Schedule G for landed properties and Schedule H for stratified properties. The SPA is a prescribed contract of sale meaning the term and conditions of the contract are given by law (Tan, 2009). The Regulation was further amended to Housing Development (Control and Licensing) (Amendment) Regulations 2007, which was implemented on December 1<sup>st</sup>, 2007.

With the enforcement of HDA 2012, came the most recent milestone amendment in the form of Housing Development (Control & Licensing) (Amendment) Regulations 2015 (HDR 2015) which came into operation on 1<sup>st</sup> July 2015. Despite being gazetted in 2012, HDA 2012 did not enter into effect until 4 years later, on 1<sup>st</sup> June 2015, to reflect the inability to draught and complete the revised HDR 2015 (Keng, 2015). This major amendment improved the prescribed SPA to reflect the momentous milestone changes made in Strata Title Amendment Act A1450.

The decisive alteration was making it compulsory for Developers to obtain Certificate of Completion and Compliance (CCC) and further enhancing the manner of delivery of VP by adding the requirement to ensure a separate strata

title relating to the unit has been issued. Moreover, to compel importance on the delivery of strata title; the schedule of payments of the purchase price under the third schedule of the SPA was amended in which Stages 2 (g) and (h) have been reduced from 5% to 2.5% for respective stages whereas the proportion for Stage 3 has been amplified from 12.5% to 17.5% upon VP being issued.



**Figure 1 – Legislation Chronology**

### CONUNDRUM OF A STRATA SCHEME DEVELOPER

Strata scheme development has been a very successful trend in this 21<sup>st</sup> century. It is evident with Department of Director General of Lands & Mines (JKPTG) reporting a total of 1,749,152 numbers of parcels has been registered in peninsular Malaysia for the year 2021. That has been a rise of 34.8% of registration from the year 2016. From that, approximately 10% was contributed by Johor (JKPTG, 2022). Johor’s parcel registration shows a consistent gradual increase of 9% since 2019 (JKPTG, 2020) (JKPTG, 2021). These numbers are sure to dramatically increase with the ongoing rapid growth of high-rise development in Johor with Country Garden group heading the pack with more than 25,000 strata residential units completed.

A strata title holds so much purpose as it’s not only being used to provide a Purchaser a document to show its propriety registered ownership, but is also a key milestone to issue VP for a Developer. Despite all the efforts of amendments being made to STA 1985 in the spirit to improve and expedite the strata title process, currently Developers are still facing the challenge of obtaining strata titles for its strata scheme development upon vacant procession (VP). When

the amendment proposal was deliberated in Parliament, it was then touted that the strata title process will be reduced from 170 days to approximately 100 days (Hansard, 2012). However, practically it's harder that it was designed for as it is a tedious process that takes a combined time and effort from the Developer, License Land Surveyor (LLS), Land and Mines Department (PTG) and Department of Survey and Mapping Malaysia (JUPEM).

Section 27 (1)(b) of HDR 1989 insists a Developer must complete the strata title process as a condition precedent in order to issue VP to the Purchaser, even if the strata scheme development has already received its CCC, where it is deemed fit for occupancy. Effectively, any application for strata title could not be made if the building has not yet been issued with the CCC (Lian, 1996). The strata title process begins from planning permission and is further illustrated by Figure 2.

An Advertising Permit and Developer License (APDL) is crucial to a Developer which grants permission to officially launch and sell their product and eventually begin generating income via sales. As regulated by HDA 1966, all monies generated from the sales will be placed in a Housing Development Account (HDA) govern by a bank licensed under the Banking and Financial Service Act 2013 (Act 758) or the Islamic financial Service Act 2013 (Act 759).

Section 7A (4) of HDA 1966 describes monies can only be withdrawn as authorised by regulations made under the Act. This regulation refers to clause 5, third schedule, schedule of payment of the purchase price in the SPA. The schedule depicts 13 milestone payments payable by the Purchaser or its financial institution to the Developer, for the unit acquired. According to the schedule, the Developer can only recoup 75% of the construction cost until VP is issued. The last 25% of the monies and any additional monies are tied to the delivery of vacant possession and subsequently completing the defect liability period (DLP) and closing of the HDA. For successful projects, this 25% margin can hit the fiscal range of tens of million sum. Thus, completing the strata title and issuing VP is ultimately high up a Developer's priority list in order to gain access to that handsome sum.

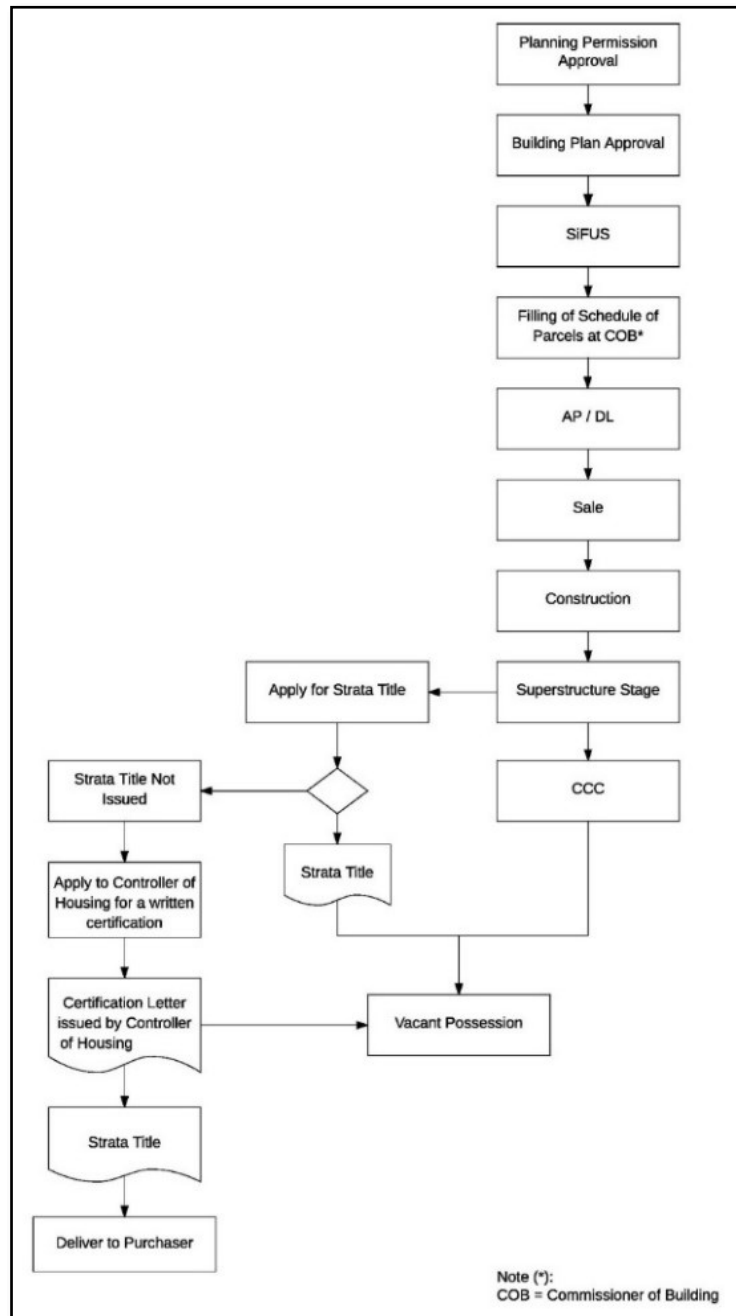


Figure 2 – Strata Title Application Process (Institute, 2016)



Knowing the challenge of VP faced by many Developers, the Ministry of Housing and Local Government (KPKT) has empowered the Housing Controller at his purview under Section 28 of HDR 1989 to issue a waiver that can allow a Developer to proceed with VP without having completed the strata title process. This waiver nevertheless does elevate the problem of collecting 17.5% of the final 25% from the HDA, but the approval comes with a restriction to removing any surplus monies from the account and attaches a new ultimatum dateline for the strata title to be completed. The withdrawal limit is still relevant here and maintains pressure on the cash flow planning of the Developer.

High rise strata development traditionally provides ultimate comfort to its residents by having integrated facilities or basic amenities including a 24-hour security system, gymnasium, swimming pool, shops, recreation areas and even clinic available within their locale. However, to guarantee that these facilities are constantly in excellent shape, each one must be maintained in accordance with its maintenance schedule (Abd-Wahab et al., 2015).

SMA 2013, SMT 2015 and SMM 2015 were enacted to guide proper maintenance and management of strata building. According to SMA 2013, the Developer is responsible for various tasks, setting up all the required for a proper maintenance management body, including key elements, such as management office, maintenance account, sinking fund account and many others. The Developer's last contribution to a strata development would end upon setting up the first annual general meeting of the Management Corporation (MC) and handing over the baton from the JMB to the MC. However, the MC can only be formed until or unless 25% of the strata title has been transferred to the respective Purchasers excluding the original proprietor of the lot of land herein the Developer. Till then the Developer is tied to the development as a member of the JMB, hence incurring unforeseen time, cost and resources.

## **RESEARCH METHODOLOGY**

This study employed a multiple case (K.Yin, 2009) research using qualitatively driven mixed method approach to eliminate generalization and biases of a single case and the desire for richness, robust, depth and a pluralist perspective (Meyer, 2001). Five strata development projects were studied, comparing within the cases and developing contrasts between them employing both quantitative and qualitative instruments such as questionnaire and interview to gather relevant data to test the research question (Race, 2008).

Through observation, reconstruction, and analysis of the situations under consideration, these case studies assist to understand both the process and consequence of the phenomena by using both quantitative and qualitative data (Zainal, 2007). Projects were sampled based on the criteria set and purposive sampling was used to access knowledgeable population herein personnel from

both state and federal government who has in-depth information of the subject, either as a result of their professional position, access to networks, influence, skill or experience (Cohen et al., 2007). Research ethics were integrated and implemented throughout the data collection process. Finally, cross case, quantitative and qualitative analysis were done to develop codes and themes for detail analysis.

The case study projects were from the developer Country Garden Pacificview, DAC Properties Sdn Bhd and Bukit Pelali Properties Sdn Bhd. The criteria set for the project selection were projects in Johor that were completed post Strata Title Amendment Act A1450 that required the Developers to issue strata title during vacant possession to the Purchasers. In addition, the cases selected ranged of different type of strata products such as service apartments, residential apartments, landed strata and mix commercial development. This was to create fundamental contrast between the chosen cases despite being similar in the strata application process.

Correspondingly, stakeholders in this research are the Licensed Land Surveyor (LLS), Developers, Financial Institutes, Architects and Property Managers of JMB from the private sector; and Land and Mines Johor (PTG), Department of Survey and Mapping (JUPEM), Commissioner of Buildings (COB), Town Council Building Department (PBT), Director General of Lands & Mines Federal (JKPTG) and Ministry of Housing and Local Government (KPKT) from the government sector.

## **RESULTS**

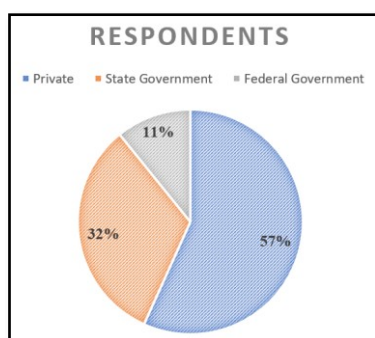
In executing the questionnaire instrument to probe the five case studies; Table 1 illustrates the baseline info of the five cases. The table illustrates the distinctive difference between the cases, especially on the type of strata development and the number of parcels a LLS has to prepare for PTG and JUPEM to process and subsequently issue the strata title. It is evident that the number of parcels increases proportionately with the size of the development. Nevertheless, for a landed strata development; despite having very less number of parcels, it still could not be completed within the design time of 36 months.

The data generally shows that a project requires at the least a minimum of additional 1 year from vacant procession to deliver the strata title. Similarly, the Developers took at least a minimum of 1 year from receiving the strata title to transfer the prerequisite of minimum 25% of title to the Purchaser to allow a formation of Management Corporation. Therefore, these 5 cases concluded that the Developers had to manage and maintain the development for a minimum of 2 years before being able to form the MC. All 5 cases were also unsuccessful to withdraw excess fund from the HDA due to failing to complete the strata title registration.

**Table 1: Case Study Data**

No	Item	Case 1	Case 2	Case 3	Case 4	Case 5
1	Strata Type	Landed Strata	Residential Apartment	Service Apartment	Mix Development	Service Apartment
2	Number of parcels	< 500	> 500   < 1,000	> 1,000   < 3,000	> 3,000   < 5,000	> 5,000   < 10,000
3	Strata title completed in 36 months	No	No	No	No	No
4	Obtained waiver from KPKT	Yes	Yes	Yes	Yes	Yes
5	Withdraw excess fund from H.D.A	No	No	No	No	No
6	Additional duration to complete strata	> 1 Year   < 2 Years	> 1 Year   < 2 Years	> 1 Year   < 2 Years	> 2 Year   < 3 Years	> 2 Year   < 3 Years
7	Duration it took to from MC	> 1 Year   < 3 Years	> 1 Year   < 3 Years	> 1 Year   < 3 Years	> 3 Year   < 5 Years	> 3 Year   < 5 Years

The quantitative tool of questionnaires and the qualitative instrument of interviews were conducted on a total of 37 respondents comprising of the private sector, state government and federal government sector. These stakeholders are policy makers, submission parties and approval parties encompassing Developers, Licensed Land Surveyors, Architects, Property Managers, Bankers, Land and Mines Johor, Commissioner of Building, Town Council, Ministry of Housing and Local Government and Directors Office of Land and Mines. Figure 3 shows the distribution percentage of the respondents. Probing them resulted in the following root cause of delay in the strata title processing ecosystem. In conclusion of the data collection process; the type of delays were ranked in Table 2.



**Figure 3: Respondents Distribution**

Reason of Delay in Strata Title	Rank
Delay in superstructure completion	1
Developer did not pay fees and taxes	7
Mistake in submission by LLS	3
Delay in CPSP approval	2
Delay in CPS approval	4
Delay in PA(B) submission	5
Delay in Borang 4 submission	6
Delay in Strata Title registration	8

**Table 2: Ranking of Cause of Delay**

The results from the study further concurred to findings from similar studies. According to a survey conducted by Azman (2017), covering only the district of Johor Bahru from 2005 to 2017, the following were the reasons why strata titles could not be issued: developer closing down, rejected the application due to miscellaneous errors, development not obtaining certificate of completion

and compliance, failure to pay land taxes and various other land problems. Hasan (2016), through his survey concluded the delay to issuing strata title is due to the difficulties in the endorsements of land use, problems in construction according to the approved drawings and various mistakes by licensed land surveyors in preparing the schedule of parcel, proposed strata plans and overall submissions to authority for approvals. Aziz (2014) summarised the delays in her research as causes from land matters, the applicant or the LLS, the completion of the building and the materials associated with the strata submissions. As for Hussin (2006), in her point of view the major cause of delay appears to be the procedures in the Land Office, the Survey Department and the Office of the Department of Lands and Mines, which were excessively slow and unwieldy.

## **CONCLUSION**

Developers that create high-rise strata development now confront more difficulties than ever before, although having the benefit of greater density over the land usage. Furthermore, they also suffer from the negative consequences of the delay in the issue of strata titles (Hussin, 2014). When getting the certificate of completion and compliance for their projects, none of the Real Estate and Housing Developers Association's (REHDA) members were able to secure strata titles, according to input from the association's president. (Buang, 2020). Problems were never shortfall despite when on 1st June 2015, the Housing Development (Control & Licensing) Act 2012, Strata Titles (Amendment) Act 2013 and Strata Management Act 2013 came into effect the momentous changes to the industry. The implementation of these Acts was complemented by the amended Housing Development (Control & Licensing) (Amendment) Regulations 2015 and Strata Management (Maintenance & Management) Regulations 2015. The combined exertion of these legislations were to promote transparency and accountability in the housing development industry (Institute, 2016). Nevertheless, it is a fact that it has imposed stricter conditions to Developers.

In conclusion, this study hopes to elevate the financial challenge to a Developer, challenges faced by the strata processing ecosystem and bring to light some proposals that could be considered for future amendments to the legislation and improvement to the current strata issuance process. It is believed improving the strata title process would be the first step to remedy the current predicament. Alternatively, the suggestion of issuing a temporary strata title on surface seems as another possible solution, however still subjected to detail deliberation.

## REFERENCES

- Abd-Wahab, S., Sairi, A., Che-Ani, A., Tawil, N., & Johar, S. (2015). Building maintenance issues: a Malaysian scenario for high rise residential buildings. *International Journal of Applied Engineering Research*, 10(6), 15759-15776.
- Abdul Ghani, S., & Lee, Y. F. (2015). Exploring the perception of lifestyle housing development in Malaysia. *The Aisa Pacific Network for Housing Research (APNHR)*, 11.
- Altmann, E. (2014). Apartments, co-ownership and sustainability: implementation barriers for retrofitting the built environment. *Journal of environmental policy & planning*, 16(4), 437-457.
- Aziz, A. B. (2014). *Isu dan Permasalahan Dalam Pengeluaran Hakmilik Strata* Universiti Teknologi Malaysia].
- Aziz, W. N. A. W. A., Haniff, N. R., Musa, Z. N., Aini, A. M., Sarip, A. G., & Zyed, Z. (2014). *Vertical Living Phenomenon in Malaysia XXV FIG Congress*, Kuala Lumpur Convention Centre.
- Azman, N. A. B. (2017). *Faktor Mempengaruhi Pengeluaran Hakmilik Strata* Universiti Teknologi Malaysia].
- Bank, T. W. (2021). *The World Bank In Malaysia*. <https://www.worldbank.org/en/country/malaysia/overview#:~:text=Malaysia%20is%20one%20of%20the,Malaysia%20linked%20to%20export%20activities>.
- Buang, S. (2017, 10 March 2017). Evolusi Undang-Undang Strata. *Utusan Malaysia*.
- Buang, S. (2020). Strata law reform - A case of failed expectations? <https://www.nst.com.my/opinion/columnists/2020/02/567958/strata-law-reform-case-failed-expectations>
- Choon, T. L., Ujang, M. U. B., Chin, T. A., Hasan, M. H. B. A., & Shah, S. N. W. B. M. (2016). New Strata Rights in Malaysia.
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research Methods in Education* (Sixth Edition ed.). Routledge.
- Department of Statistics Malaysia, D. (2021). *Gross Domestic Product (GDP) By State 2020*. [https://www.dosm.gov.my/v1/index.php?r=column/cthemByCat&cat=491&bul\\_id=YnhhZ2g5QlpZWG9RcVNwTGhLaHE4UT09&menu\\_id=TE5CRUZCblh4ZTZMODZlbnk2aWRRQT09](https://www.dosm.gov.my/v1/index.php?r=column/cthemByCat&cat=491&bul_id=YnhhZ2g5QlpZWG9RcVNwTGhLaHE4UT09&menu_id=TE5CRUZCblh4ZTZMODZlbnk2aWRRQT09)
- Easthope, H., & Randolph, B. (2016). Principal-agent problems in multi-unit developments: The impact of developer actions on the on-going management of strata titled properties. *Environment and Planning A: Economy and Space*, 48(9), 1829-1847. <https://doi.org/10.1177/0308518x16650894>
- Hansard. (2012). *Penyata Rasmi Parlimen Dewan Rakyat Parlimen Kedua Belas Penggal Lima Mesyuarat Ketiga*. In (pp. 79). Government of Malaysia.
- Hasan, M. H. B. A. (2016). *Pengeluaran Hakmilik Strata Selepas Perlaksanaan Akta Hakmilik Strata (Pindaan) 2013 (Akta 1450)* Universiti Teknologi Malaysia].
- Hashim, M. N., Hassan, M. I., & Abdul Rahman, A. (2018). 3d Modelling Towards Strata Registration. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, XLII-4/W9, 23-26. <https://doi.org/10.5194/isprs-archives-XLII-4-W9-23-2018>

- Hussin, K. (2006). *A Critical Evaluation of Certain Aspects of Strata Title Act 1985* (Publication Number U218706) University of Aberdeen]. United Kingdom.
- Hussin, K. (2014). Apartment Law In Malaysia Buying Properties Without Title : Legal Point Of View.
- Institute, R. (2016). Process on SiFUS & Strata Title. 5. <https://rehdainstitute.com/flow-chart-for-sifus-sijil-formula-unit-syer-and-strata-title-application-for-strata-developments/>
- JKPTG, D. o. D. G. L. a. M. (2020). *Infografik Statistik Pendaftaran Hakmilik Strata di Semenanjung Malaysia Tahun 2019*  
<https://www.jkptg.gov.my/en/sumber/infographics/file/193-infografik-strata-1-2020-bilangan-hakmilik-strata-yang-telah-didaftarkan-di-semenanjung-malaysia-sehingga-akhir-tahun-2019>
- JKPTG, D. o. D. G. L. a. M. (2021). *Infografik Statistik Pendaftaran Hakmilik Strata di Semenanjung Malaysia Tahun 2020*  
<https://www.jkptg.gov.my/en/sumber/infographics/file/244-infografik-statistik-pendaftaran-hakmilik-strata-tahun-2020>
- JKPTG, D. o. D. G. L. a. M. (2022). *Infografik Statistik Pendaftaran Hakmilik Strata di Semenanjung Malaysia Tahun 2021*  
<https://www.jkptg.gov.my/en/sumber/infographics/file/268-infografik-statistik-pendaftaran-hakmilik-strata-di-semenanjung-malaysia-tahun-2021>
- K.Yin, R. (2009). *Case Study Research Design and Methods* (A. E. V. Knight & A. E. S. Connelly, Eds. Fourth Edition ed.). SAGE Publications.
- Keng, Y. P. (2015). Salient amendments to the principal Regulations 1989. <http://johorebar.org.my/wp-content/uploads/2016/05/Housing-Development-Control-and-Licensing-Amendment-Regulations-20151.pdf>
- KPKT, M. o. U. W., Housing and Local Government (2019). KPKT Statistics 2019. 108. <https://www.kpkt.gov.my/index.php/pages/view/700?mid=586>
- Lian, C. G. (1996). Strata Titles Amendments: An Overview. Seminar On Malaysian Land Laws, Crown Princess Kuala Lumpur.
- Meyer, C. B. (2001). A Case in Case Study Methodology. *Field Methods, Volume 13*, 329-352. (Sage Publications)
- NAPIC, V. P. S. D. M. (2021). *NAPIC Property Market Report 2020*. <http://napic.jp-ph.gov.my>
- NAPIC, V. P. S. D. M. (2022). *NAPIC Property Market Report 2021*. N. P. I. Centre. [https://napic.jp-ph.gov.my/portal/ms/web/guest/publication?p\\_p\\_id=ViewPublishings\\_WAR\\_ViewPublishingsportlet&p\\_p\\_lifecycle=0&p\\_p\\_state=normal&p\\_p\\_mode=view&p\\_p\\_col\\_id=column-1&p\\_p\\_col\\_count=2&ViewPublishings\\_WAR\\_ViewPublishingsportlet\\_action=renderReportPeriodScreen&publishingId=445&pageno=1&language=](https://napic.jp-ph.gov.my/portal/ms/web/guest/publication?p_p_id=ViewPublishings_WAR_ViewPublishingsportlet&p_p_lifecycle=0&p_p_state=normal&p_p_mode=view&p_p_col_id=column-1&p_p_col_count=2&ViewPublishings_WAR_ViewPublishingsportlet_action=renderReportPeriodScreen&publishingId=445&pageno=1&language=)
- Nurul Sal Shabila Izanda, S. S., Mazalan Zainuddin. (2020). Strata Title Reform in Malaysia: A Review and Challenges Of Regulatory And Governance Panacea [Journal]. *European Journal of Molecular & Clinical Medicine*, 07(08), 14.
- O'Neill, A. (2022). *Malaysia: Urbanization from 2010 to 2020*. Statista. <https://www.statista.com/statistics/455880/urbanization-in-malaysia/>

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*Late Strata Titles Delivery: Insights and Impact to High Rise Housing Development*

- Race, R. (2008). Education in Qualitative Research. In L. M. Given (Ed.), *The SAGE Encyclopedia of Qualitative Research Methods* (Vol. Volume 1 & 2, pp. 240). SAGE Publications, Inc.
- S.N, K., Salleh, N. M., & S.A.F, A. (2010, 2-3 September 2010). *Assessment on Problems of Issuances and Transferences of Strata Title in Malaysia: The Perception of the Owner* The Construction, Building and Real Estate Research Conference of the Royal Institution of Chartered Surveyors 2010, Paris, France.
- Soebiyanto, V., Saragih, J. F. B., & Tedja, M. (2017). Study on High-Rise Building Using Wind Energy at Humid tropical Climate. *CHEMICAL ENGINEERING TRANSACTIONS*, 56, 6. <https://doi.org/10.3303/CET1756041>
- Ta, T. L. (2009). Managing High Rise Residential Building in Malaysia. *2nd NAPREC Conference, INSPEN*, 25.
- Tan, D., & Partners, T. (2016). Malaysia : An Overview Of The Recent Amendment To The Housing Development (Control And Licensing) Act 1966. <https://www.mondaq.com/real-estate/467810/an-overview-of-the-recent-amendment-to-the-housing-development-control-and-licensing-act-1966>
- Tan Liat Choon, M. U. B. U., Thoo Ai Chin, Ng See Eng, Goh Leong Sen, Mohd Hanif Bin Abu Hasan, Shaidatul Nur Wahidah Binti Muhamad Shah. (2016). Condominium Rights in Malaysia. *Advance Science Letters*, 22, 4.
- Tan, R. (2009). *Buying Property From Developers*. Sweet & Maxwell Asia.
- Tan Wee Vern, Tan Liat Choon, Toh Ming Liang, Nabilah Huda Binti Yaccub, Muhamad Uznir Bin Ujang, & □, T. A. C. (2019). Analysis Towards The Current Management Of Limited Common Property In Malaysia. *International Journal of Engineering and Advanced Technology*, 8(5C), 798-807. <https://doi.org/10.35940/ijeat.E1113.0585C19>
- Zainal, Z. (2007). Case Study as a Research Method. *Jurnal Kemanusiaan, Bil* 9, 6.
- Zan, R. M., Roslan, D. S. N. A., Mustafa, N. K., & Senawi, A. (2018). Establishment of share unit formula for strata residential buildings and its implication to buyer and unit owner. *International Journal of Engineering & Technology*, 7(2.29), 119-124.

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