

**AN ASSESSMENT ON MANAGEMENT AND
MAINTENANCE OF LOW-COST AND LOW-MEDIUM
COST STRATA HOUSING IN MALAYSIA**

BY

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ABSTRACT

The trend towards strata housing in Malaysia is gaining momentum, driven by rapid urbanization and land scarcity especially within strategic urban areas. This study investigates the critical and prolonged issues surrounding maintenance charges and maintenance work in strata management, specifically focusing on medium and low-cost strata housing. The study aims to identify and analyse the perceptions of strata owners and strata management bodies regarding the current practices and issues in strata management in Malaysia. It further explores the stages of strata development and related regulations that impact the establishment and efficiency of strata management. The research employed primary data, collected from surveys conducted among strata residents, and strata management representatives, as well as an in-depth analysis of the Commissioner of Buildings' (COB) primary dataset obtained through the Bahagian Perkhidmatan Perbandaran, Kementerian Perumahan dan Kerajaan Tempatan (KPKT), (currently known as the Kementerian Pembangunan Kerajaan Tempatan). The data collected from the three primary sources underwent further analysis using triangulation method to corroborate key findings in this study. The investigation concluded that inadequate collection of maintenance fees and contributions to sinking funds significantly impede the provision of quality management and maintenance services in low-cost and low-medium cost strata housing. Consequently, this study strongly advocates for amendments to the Strata Management Act to establish clearer standards for stakeholders and ensure alignment with evolving strata development trends. Additionally, the study recommends enhancing transparency in decision-making processes and facilitating access to data to foster trust between owners and management, thereby improving the collection of maintenance fees and contributions to sinking funds. Policymakers are urged to consider mandating Building Condition Assessments for aging buildings to promote preventive maintenance through maintenance fee and sinking fund reassessments. Furthermore, it is imperative to maintain persistent awareness efforts and foster constructive discussions aimed at enhancing awareness of strata ownership. These initiatives should extend beyond the current stakeholders governed by the Act to encompass prospective strata purchasers.

ملخص البحث

يكتسب الاتجاه نحو الإسكان الطبقي في ماليزيا زخماً مدفوعاً بالتوسع الحضري السريع وندرة الأراضي خاصة داخل المناطق الحضرية الاستراتيجية. تبحث هذه الدراسة في القضايا الحرجة والمطولة المحيطة برسوم الصيانة وأعمال الصيانة في إدارة الطبقات، مع التركيز بشكل خاص على إسكان الطبقات المتوسطة والمنخفضة التكلفة. تهدف الدراسة إلى تحديد وتحليل تصورات أصحاب الطبقات وهيئات إدارة الطبقات فيما يتعلق بالممارسات والقضايا الحالية في إدارة الطبقات في ماليزيا. وتستكشف كذلك مراحل تطور الطبقات واللوائح ذات الصلة التي تؤثر على إنشاء إدارة الطبقات وكفاءتها. استخدم البحث البيانات الأولية، التي تم جمعها من الاستطلاعات التي أجريت بين سكان الطبقات، ومثلي إدارة الطبقات، بالإضافة إلى تحليل عميق لمجموعة البيانات الأولية لمفوض المباني (COB) التي تم الحصول عليها من خلال قسم الخدمات البلدية (Bahagian Perkhidmatan Perbandaran) ووزارة الإسكان (Kementerian Perumahan)، والحكومة المحلية (Kerajaan Tempatan. (KPKT) المعروفة حالياً باسم وزارة تنمية الحكم المحلي (Kementerian Pembangunan Kerajaan Tempatan) خضعت البيانات التي تم جمعها من المصادر الأولية الثلاثة لمزيد من التحليل باستخدام منهج التثليث لتأكيد النتائج الرئيسية في هذه الدراسة. وخلص التحقيق إلى أن عدم كفاية تحصيل رسوم الصيانة والمساهمات في صناديق متخصصة يعيق بشكل كبير توفير خدمات إدارة الجودة والصيانة في المساكن منخفضة التكلفة ومنخفضة التكلفة المتوسطة. وبالتالي، تدعو هذه الدراسة بقوة إلى إدخال تعديلات على قانون إدارة الطبقات لوضع معايير أكثر وضوحاً لأصحاب المصلحة وضمان التوافق مع اتجاهات تنمية الطبقات المتطورة. بالإضافة إلى ذلك، توصي الدراسة بتعزيز الشفافية في عمليات اتخاذ القرار وتسهيل الوصول إلى البيانات لتعزيز الثقة بين أصحاب الملكية والإدارة، وبالتالي تحسين تحصيل رسوم الصيانة والمساهمة في صندوق الاحتياط. يتم حث صناع

السياسات على النظر في فرض تقييمات حالة البناء للمباني القديمة لتعزيز الصيانة الوقائية من خلال رسوم الصيانة وإعادة تقييم صندوق الاحتياط. علاوة على ذلك، من الضروري الحفاظ على جهود التوعية المستمرة وتعزيز المناقشات البناءة التي تهدف إلى تعزيز الوعي بملكية الطبقات. ويجب أن تمتد هذه المبادرات إلى ما هو أبعد من أصحاب المصلحة الحاليين الذين يحكمهم القانون لتشمل المشترين المحتملين للطبقات.



APPROVAL PAGE

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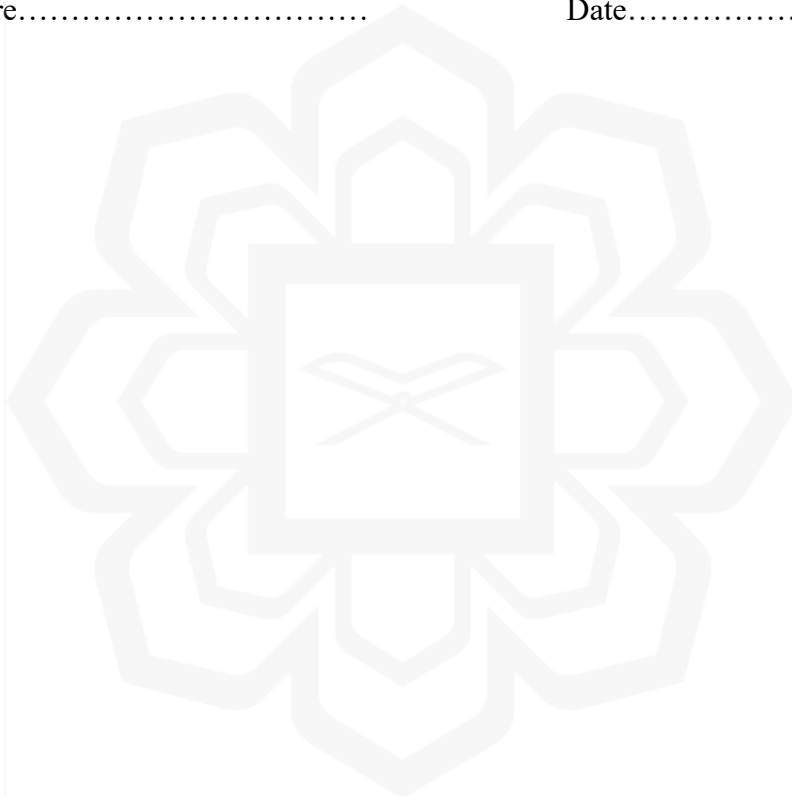
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*This thesis is dedicated to my beloved family members for their love and tolerance;
Ainon Jariah Muhamad, Amin Arif, Yuslinaniza, Ainil Ainiah, Mohd Zulhairy,
Anis Adriana, Amin Ashraf, Ammar Hadif, Zahara Amani, Aiman Hafidh,
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*In loving Memory of my beloved father, an admired role model,
Ahmad Shuhaimi Mat Dom (1956-2016)*

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TABLE OF CONTENTS

Abstract	ii
Approval Page.....	v
Declaration	vi
Copyright	vii
Dedication	viii
Acknowledgments.....	ix
Table of Contents	x
List of Tables	xiii
List of Figures	xvii
List of Abbreviations	xix
CHAPTER ONE INTRODUCTION	1
1.1 Introduction.....	1
1.2 Research Background	1
1.3 Problem Statement.....	2
1.3.1 Poor Maintenance in Low-Cost Strata Housing	3
1.3.2 Mismatch of Maintenance Cost, Charge and Sinking Fund	4
1.3.3 Disputes Over Maintenance Fee Amount and Poor Collection	5
1.3.4 Rise in Strata Management Tribunal Claims	6
1.4 Research Aim.....	7
1.5 Research Obejctives and Questions.....	8
1.6 Significance of The Study	9
1.7 Researh Framework	9
1.8 Definition of Terms	11
1.9 Research Limitation.....	16
1.10 Research Structure	17
CHAPTER TWO RESIDENTIAL STRATA DEVELOPMENT	19
2.1 Intoduction.....	19
2.2 Strata Development	20
2.2.1 Low-Cost Low Medium Cost Strata	23
2.2.2 Program Perumahan Rakyat (PPR).....	27
2.3 Strata Laws and Related Legislations.....	30
2.3.1 Strata Titles Act 1985 (Act 318)	31
2.3.2 Strata Management Act 2013 (Act 757) & Regulations	36
2.3.3 Stakeholder in Strata Management	51
2.3.4 Strata Management Tribunal.....	65
2.4 Related Development Legislation and Processes	73
2.4.1 Housing Development (Control And Licensing) Act 1966 [Act 118].....	73
2.4.2 National Land Code [Act 828].....	76
2.4.3 Town and Country Planning Act 1976 [Act 172].....	76
2.4.4 Street, Drainage and Building Act 1974 [Act 133].....	76
2.4.5 Development Process	77

2.5 Chapter Summary	87
CHAPTER THREE BUILDING MANAGEMENT, MAINTENANCE AND BEST PRACTICES.....	88
3.1 Introduction.....	88
3.2 Maintenance and Management	89
3.2.1 Maintenance of Building Character and Condition	90
3.2.2 Maintenance of Common Properties.....	94
3.2.3 Financial Strategy in Management	102
3.2.4 Talent Management and Resources	107
3.2.5 Issues in Strata Maintenance.....	109
3.2.6 Building Use and Owners' Attitude.....	113
3.2.7 Owners' Expectation and Satisfaction	114
3.3 Best Practices (Australia, Singapore and Hong Kong).....	117
3.3.1 NSW, Australia	118
3.3.2 Singapore	127
3.3.3 Hong Kong.....	136
3.3.4 Summary of Best Practices	144
3.4 Chapter Summary	149
CHAPTER FOUR RESEARCH METHODOLOGY	150
4.1 Introduction.....	150
4.2 Research Stages	151
4.2.1 Stage 1: The initiation and Critical Review	151
4.2.2 Stage 2: Data Collect and Collate	151
4.2.3 Stage 4: Data Analysis	162
4.3 Chapter Summary	164
CHAPTER FIVE DATA ANALYSIS.....	165
5.1 Introduction.....	165
5.2 Primary Data From Cob.....	165
5.2.1 COB's Sstrata Management Registration Record.....	165
5.2.2 COB's Enforcements on Failure to Comply to Strata Management Act 2013.....	170
5.2.3 Summary of COB Data Output.....	177
5.3 Strata Residents' Response Analysis.....	177
5.3.1 Respondents' Profile	178
5.3.2 Maintenance Fee	182
5.3.3 Satisfaction.....	186
5.3.4 Awareness	190
5.3.5 Summary of Residents' Survey.....	195
5.4 Managements' Response Analysis	196
5.4.1 Respondents' Background	196
5.4.2 Maintenance Fee	199
5.4.3 Reoccurring Repairs and Cost Impacts.....	202
5.4.5 Challenges.....	207
5.4.6 Summary Management's Survey	210
5.5 Triangulation and Discussion	210
5.5.1 Management and Maintenance Costs	211

5.5.2 Maintenance Issue and Challenges	216
5.5.3 Awareness	220
5.6 Chapter Summary	223
CHAPTER SIX CONCLUSION AND RECOMMENDATION	224
6.1 Introduction.....	224
6.2 Research Findings.....	224
6.3 Research Recommendations	229
6.4 Future Studies	234
REFERENCE	235
APPENDIX I: SURVEY IMPLEMENTATION LETTER	254
APPENDIX II: QUESTIONNAIRE FOR STRATA OWNERS	255
APPENDIX III: QUESTIONNAIRE FOR MANAGEMENT OFFICE	266
APPENDIX IV: LIST OF TPP 2022 APPLICANTS	275



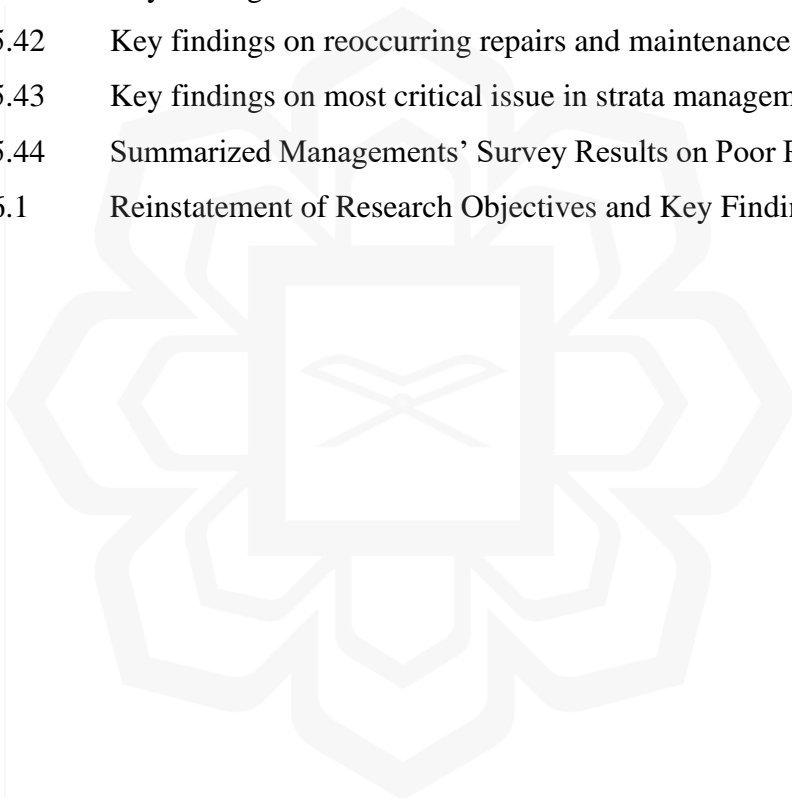
LIST OF TABLES

Table 2.1	Low-cost and low-medium cost prices over the time	25
Table 2.2	State level Affordable Housing Policy	25
Table 2.3	Existing Stock (units) for low-cost flat and flats, as of 2022 update	26
Table 2.4	PPR units in completed project and type of dwellings	28
Table 2.5	Example of Share Unit Calculation	39
Table 2.6	Simulation of maintenance rates	40
Table 2.7	Management’s responsibilities relating to Account	44
Table 2.8	Differences between managing commercial v. residential	49
Table 2.9	Building management personnels and their roles	50
Table 2.10	Summary of Responsibilities of Management Bodies according to Strata Management Act 757	58
Table 2.11	Successful establishment of management bodies	61
Table 2.12	Strata Management Tribunal Prescribed Fees	67
Table 2.13	Comparison of Dispute Resolution Costs and Duration	69
Table 2.14	Cases Registered in Strata Management Tribunal, 2017-September 2022	70
Table 2.15	Cases Settled in the Strata Management Tribunal, 2017-September 2022	70
Table 2.16	Judicial Review Cases in the Tribunal for Strata Management, 2017- September 2022	71
Table 2.17	Award Default under the Tribunal for Strata Management, 2017- 2021	72
Table 3.1	Summarised definition of Common Property	95
Table 3.2	Elements of Maintenance Costs	103
Table 3.3	Existing forms of maintenance	105
Table 3.4	Factors affecting Quality Maintenance	110
Table 3.5	RII on Maintenance Frequencies	112

Table 3.6	Maintenance elements affecting the residents' satisfaction level	115
Table 3.7	Aspects of studies on residential satisfaction	116
Table 3.8	Common types of property management fees in Australia	123
Table 3.9	Example of monthly maintenance charge based on \$80 per share value	132
Table 3.10	Examples of S&CC Normal Rates according to Town Councils (SGD)	133
Table 3.11	Typical housing types in Hong Kong	136
Table 3.12	Categories of housing in Hong Kong	137
Table 3.13	Hong Kong property overview in 2020 to 2021	138
Table 3.14	Strata management practices	146
Table 4.1	Existing Stock (units) for low-cost flat and flats, as of 2020 update	152
Table 4.2	Summary of TPP Applicants within the state of Selangor	153
Table 4.3	PPR units in completed project and type of dwellings	155
Table 4.4	Structure of Questionnaire Survey	158
Table 5.1	Number of Strata Management Bodies according to state for the year 2020	166
Table 5.2	Distribution of management bodies according to local authority (2020)	168
Table 5.3	Number of enforcements for non-compliance in the year 2020	172
Table 5.4	Number of Enforcements cases between 2017 until 2020, Highest Five	175
Table 5.5	Total Number of Enforcements Taken throughout 2017 until 2020 According to the Strata Management Act 2013 provisions	176
Table 5.6	Respondents' Profile	178
Table 5.7	Crosstabulation	180
Table 5.8	Strata Category and type of management	180

Table 5.9	Crosstabulation of strata category according to walk-up or with lifts	181
Table 5.10	Maintenance fee according to the strata category	182
Table 5.11	Respondents' perception towards maintenance fee	183
Table 5.12	Maintenance Fee and lift or walk-up relationship	184
Table 5.13	Descriptive analysis on maintenance fee and lifts services	184
Table 5.14	Factors influencing maintenance fee	185
Table 5.15	Satisfaction towards common facilities with active management	186
Table 5.16	Maintenance Fee and satisfaction level	187
Table 5.17	Descriptive analysis on the strata scheme status and ANOVA test	188
Table 5.18	Descriptive analysis on the strata scheme status and ANOVA test	188
Table 5.19	Satisfaction in regards overall management	189
Table 5.20	AGM Attendance and Absence	190
Table 5.21	Damages and/or repair works within jurisdiction of the management body	191
Table 5.22	Respondents' perceived Responsibilities fulfilment by management bodies	192
Table 5.23	Instances of disputes between respondents and management	194
Table 5.24	Point of reference on strata management	195
Table 5.25	Management bodies' profile	196
Table 5.26	Building age according to delivery of VP and issuance of CCC	197
Table 5.27	Management without CCC record	198
Table 5.28	Maintenance Fee according to strata category	199
Table 5.29	Maintenance fee Correlations	200
Table 5.30	Descriptive analysis on maintenance fee and ANOVA test	200
Table 5.31	Factors influencing maintenance fee	201
Table 5.32	Reoccurring damages and required repairs	202
Table 5.33	Correlation between frequent damages and building age	203

Table 5.34	Annual maintenance expenditure	204
Table 5.35	Mean score for maintenance / management with most cost impact	205
Table 5.36	Correlation between frequent damages and building age	206
Table 5.37	Mean score for critical issue in strata management	207
Table 5.38	Late maintenance charge contribution by strata owners	208
Table 5.39	Percentage of late payment of maintenance fee by strata owners / residents	208
Table 5.40	Key findings on factors influencing cost	213
Table 5.41	Key findings on maintenance fee	215
Table 5.42	Key findings on reoccurring repairs and maintenance	217
Table 5.43	Key findings on most critical issue in strata management	218
Table 5.44	Summarized Managements' Survey Results on Poor Records	222
Table 6.1	Reinstatement of Research Objectives and Key Findings	225



LIST OF FIGURES

Figure 1.1	Research Framework	10
Figure 2.1	Literature Framework on Strata Laws, Development and Management	19
Figure 2.2	Residential Property Transactions According to Type (unit)	21
Figure 2.3	Types of housing, Landed and High-rise Strata Scheme	23
Figure 2.4	Simplified structure of Strata Titles Act	32
Figure 2.5	Procedure towards Strata Title application	35
Figure 2.6	Simplified framework of Strata Management Act 757	36
Figure 2.7	Share Unit formula according to Strata Management Act 757	38
Figure 2.8	Process of attachment of any movable property (Section 35, Strata Management Act)	47
Figure 2.9	Records on type of management bodies throughout 2016-2019	57
Figure 2.10	Stages of strata management where Vacant Possession without Strata Title	62
Figure 2.11	Simplified roles and commitments as strata unit purchasers and owners	64
Figure 2.12	Stakeholders in managing strata developments under the Act.	65
Figure 2.13	Location of Strata Management Tribunal Headquarters, Zones and Additional Courts	66
Figure 2.14	Steps in Filing Claims at Strata Management Tribunal	68
Figure 2.15	High-rise Housing Sale and Purchase Agreement, Third Schedule	74
Figure 2.16	Relevant Legislation in Development Process	78
Figure 2.17	Matters related to Strata Title during construction stage	81
Figure 2.18	Residential strata development	83
Figure 2.19	Development process	85
Figure 3.1	Literature Framework on Strata Management and Maintenance	89

Figure 3.2	Services and attribute of building management affecting maintenance cost	90
Figure 3.3	Examples of low-cost strata housing (walk-ups)	97
Figure 3.4	Examples of low-cost strata housing (with Elevators)	98
Figure 3.5	Examples of PPR schemes	99
Figure 3.6	Illustrated elements of strata property according to responsible party	101
Figure 3.7	Household's type of dwellings in Singapore	128
Figure 3.8	Number private residential stocks in Singapore in 2017-2022	129
Figure 4.1	Stages of data collection and analysis	150
Figure 4.2	Sampling mapping (distribution of low cost and medium low cost)	154
Figure 4.3	Distribution of PPR schemes under governance of DBKL	156
Figure 4.4	Triangulation Method	164
Figure 5.1	Distribution of Management Bodies according to year, 2016-2020	167
Figure 5.2	Parties and Stages of offences according to the sections of Strata Management Act 2013	171
Figure 5.3	Enforcement Trend from 2017 until 2020	174
Figure 5.4	Percentage (%) distribution of maintenance fee	183
Figure 5.5	Matters of complaints and disputes	194
Figure 5.6	Late payment recovery alternatives	209
Figure 5.7	Triangulation of 3 sources of collected data	211

LIST OF ABBREVIATIONS

AGM	Annual General Meeting
APDL	Advertisement Permit and Developer's License
AUD	Australian Dollar
BP	Building Plan
CCC	Certificate of Completion and Compliance
COB	Commissioner of Buildings
COVID	Corona Virus Disease
CPSP	Certificate of Proposed Strata Plan
DBKL	Dewan Bandaraya Kuala Lumpur
DLP	Defect Liability Period
HDB	Housing & Development Board
JMB	Joint Management Body
JPN	National Housing Department / Jabatan Perumahan Negara
JUPEM	Department of Survey and Mapping Malaysia
KPKT	Kementerian Pembangunan Kerajaan Tempatan
MBSA	Majlis Bandaraya Shah Alam
MPKJ	Majlis Perbandaran Kajang
MC	Management Corporation
MCO	Movement Control Order
NAPIC	National Property Information Centre
NLC	National Land Code
NSW	New South Wales
PPR	Program Perumahan Rakyat
REHDA	Real Estate and Housing Developer Association
RII	Relative Importance Index
STA	Strata Management Act
SPSS	Statistical Package for the Social Sciences
SMA	Strata Management Act
SGD	Singapore Dollar
S&CC	Service & Conservancy Charges
SiFUS	Certificate of Share Unit Formula
SOP	Schedule of Parcels
VP	Vacant Possession

CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

The purpose of this chapter is to lay the foundation for the entire study and to briefly provide the thesis structure that will further be divided into 10 parts which include the research background, the research problem, research aim and objectives, as well as the research questions. The parts that follow will elaborate on the significance of the research and the research framework.

1.2 RESEARCH BACKGROUND

The housing trend in Malaysia is slowly shifting from the conventional landed housing, towards the strata housing, complete with common facilities and shared properties. The public has become more aware of the convenience of strata living, especially the working class. In general, strata building comprises of building that subdivides into parcels that includes accessory parcels and provisional block (if any), inclusive of other common properties in the form of corridors, lifts, open spaces, water tanks, and etc (Nor Asiah et al., 2015). The movement of the working class to the urban areas has increased the demand for urban accommodation. This movement creates opportunities for developers to develop more residential units within the urban area at a faster rate. However, due to the scarcity of land, majority of new developments are built vertically as high-rise buildings.

The increasing number of strata housing is a result of rapid urbanisation especially in the Greater KL that is greatly influenced by the active economic activities and the scarcity of land for landed developments. Based on the recently reported 2022 data, the transaction of residential properties show that the transactions of high-rise

strata properties in Kuala Lumpur have been consistently higher than the demand for landed properties as the number is reflected through the number of transactions made between 2019 until 2022 (National Property Information Centre (NAPIC), 2022a). This has driven the Ministry of Local Government Development (KPKT) to relook into the Housing Development Act (HDA) 118 and Strata Management Act (SMA) 757 to ensure that the provision under each Act(s) continues to be relevant and just towards the stakeholders, i.e., the home owners, developers and other related authorities.

Recent studies and reports have raised issues relating to strata management as it has great influence on the overall quality of life amongst the residents. The issues ranging from the smallest issue concerning pets to the more major issue relating to inter-floor leakages, maintenance fee collection, are very much interrelated and in many ways affect the overall well-being of strata living (Ashraf Wahab, 2020). The rise in strata properties also meant that there is a growing number of maintenance charge transactions taking place (S. Ng, 2018).

1.3 PROBLEM STATEMENT

The continued number of residential strata calls for a more effective governance of strata management. This research sought to identify the issues related to the management as more people choose to stay in strata developments. Maintenance issues have become more diverse as strata developments become more complex over time, with more provision for common properties to encourage healthy neighbourhood.

One of the core principles of property maintenance is to retain the property's investment value, to sustain the building's condition so that it satisfies its function and maintains its excellent appearance and building age (Akomolafe, 2020; Bhattacharya, 2016; Lateef, 2009; Md Azree, 2016). The limited resources for maintenance work in addition to poor conduct and use by the residents is to no surprise probable reasons why the low-cost strata properties have been negatively valued. Inability to efficiently manage and maintain the strata property or any building has a direct impact on the

building's overall condition and services, as well as risking the decline in property value.

1.3.1 Poor Maintenance in low-cost strata housing

The low-cost housing has always been critiqued for its poor quality and defective outcomes whilst some low-cost housings are deteriorating due to poor design, and insufficient maintenance. Multiple observations and studies were reported on the poor condition of low-cost housing in Malaysia, where claims are made against low-cost strata housing for being poorly maintained, especially relating to the lift services (Abdul-Rahman et al., 2014; Ismail et al., 2015; Noor Suzilawati et al., 2021; Wahi et al., 2018). Literature identified several aspects that cause poor property maintenance and management of services, inclusive of poor life services and poor cleaning services to name a few.

Other aspects of literature have also identified that the poor condition of low-cost housing are results of poor attitude and poor sense of belonging amongst the residents. Studies on behavioural aspects were mostly related to owners' demography of those under the B40 (low-income) category, presumably because they either cannot afford to, or reluctant to contribute their maintenance charges and sinking fund (V. Chong, 2020); claiming that the lack of proper use of the property and common facilities is also a common cause. Studies have shown that significant factors contributing to poor management includes poor initial planning, lack of knowledge among home buyers, insufficient regulation and enforcement, and insufficient and ineffective management practices (Tiun, 2006), which will also be re-assessed in this study. Examples include prolonged issues on plumbing and piping causing clogging and stagnant waters which form a threat to the residents' safety and health (Akomolafe, 2020), and which will ultimately result in major repair works in the future.

Other issues include those related to the condition of existing facilities within strata developments. According to a study done by (Noor Suzilawati et al., 2021), properties that require high maintenance and repair works include items damaged due

to vandalism, leakages of water tanks and pipes, damaged common spaces, leaking roofs as well as neglected garbage houses. Undue restrictive policies can create tensions between owners since they restrict individual rights in favour of communal ones (Altmann, 2016).

1.3.2 Mismatch of maintenance cost, charge and sinking fund

The matter of maintenance charge and sinking fund are two main payments that serve two different and distinct purposes. Different types of strata schemes have raised arguments on the formula and basis for maintenance charge calculation and rates determination.

Maintenance charge is a substantial amount due that is intended to cover the expenses or to be incurred in preserving the common property such as cleaning services, security, maintaining amenities, maintaining good condition of the common property, conducting inspections, maintenance and repair of all plumbing and electrical as well as paying expenses relating to the procurement of services etc. Whilst the sinking fund is a sum collected for periodic upgrading works, repainting or refurbishment works, that is commonly 10% of the maintenance fee. Sinking fund (Lau, 2019b; Strata Management Act 2013 (Act 757), 2013), or a replacement fund, is a significant source to renew or replace major tools or refurbishment work. Hence it is extremely crucial to take into consideration the condition of the building in determining the maintenance fee and sinking fund.

Studies have found that when the maintenance cost exceed the expected amount of maintenance fee and management offices would commonly draw out from the sinking fund, but fail to reimburse the withdrawal (Lau, 2019b). Major repair works are predetermined based on maintenance reports where the related professional will determine the works and period over time (Lynch, 2013). Thus, it is reasonable to deduce that the sinking fund amount is greatly influenced by the building age and condition. One case of insufficient maintenance fund was during the peak of the movement control order over Covid-19 when the Malaysian Government required

sanitisation works to take place. It became an additional cost incurred outside the original maintenance fee estimation. The management bodies, JMB and MC alike had taken into their discretion and power to utilise the sinking fund to finance the said additional sanitation costs (Bernama, 2021). In response, the Kuala Lumpur City Hall (DBKL) in a 2021 report reiterated that it was necessary for the management bodies to reimburse the used funds as soon as the pandemic stabilizes.

This is a very relevant example showing the significance of sinking fund collection, usage and reimbursements, if needed. Different weightage on the role and significance of the sinking fund also has its own repercussion towards the management body's ability to manage and maintain the strata scheme.

Aside from emergency cases as in the like of Covid-19, insufficient maintenance fee and sinking fund is also a result of poor collection of the maintenance fee itself. The maintenance cost that is calculated according to the intended share units and the final sum collected should add-up. However, there are residents who refuses to pay the maintenance fee despite being charged as low as between RM35 to RM45 for low-costs strata. As a result, management bodies suffer and bear fund shortage that hinder them from performing the necessary maintenance works. The management bodies were already financially challenged as the actual maintenance cost would require the residents to contribute up to RM90, but were only charged between RM35 to RM 45 instead (Azlan Zambry, 2023).

1.3.3 Disputes over maintenance fee amount and poor collection

As clearly stated under the provision of the Strata Management Act 757, it is the obligation of the strata owners to pay charges via methods available to the JMB and MC. However, disapproval of the maintenance fee amount amongst the residents is one of the many reasons why the residents refuse to pay the maintenance fee. It was mentioned in a report by Azlan Zambry (2023) that residents were found to only be willing to pay RM20, rather than the already reduced amount of RM35 from RM90. In general, low-cost strata only imposed maintenance of less than RM100, yet some

residents still find this difficult to be fulfilled. In some cases, the amount of refused payments have reached RM8,000 to as high as RM15,000 (Bavani, 2022), per parcel unit.

The economic challenges post Covid-19 were not of any help either. The movement control order imposed by the Government has resulted in an immediate economic activity slump, where the JMB, MC and the residents' association have experienced difficulties in collecting fees weeks after the control order announcement (Fara Aisyah, 2020). Insufficient maintenance fee collection is detrimental to the building condition as the necessary maintenance and repair work cannot be carried out. The management body may take legal actions towards strata residents and owners who refuse to pay the maintenance fee, which includes the Tribunal claims (Ummu Sholehah et al., 2020).

Disagreement on the maintenance fee charged is one of the reasons that leads to refusal to pay or disputes between the residents and the management body. One recent case in reference, where the residents and purchasers of Pangsapuri Harmoni 1 in Putra Heights collectively filed complaints against the developer for charging as high as RM212.00 monthly as the maintenance fee for facilities and workmanship that were not built up to standard (Hilmi, 2023). In this case, should the issue between the residents and the developer remains unresolved, the residents have every right under the law to file for Tribunal claims.

1.3.4 Rise in Strata Management Tribunal claims

Owners who fail to comply to the Tribunal Award for failure to pay unpaid maintenance fee and sinking fund can face criminal penalty by the court; the same can also be imposed to a defaulting developer. This is the nature and rights given under the Strata Management Act and the Strata Management Tribunal regulation as an option for dispute and claim resolutions. The number of cases in Tribunal has increased over time, where in 2020, the total number of cases filed were 5,675 in comparison to 4,964 cases in 2019 and 2,642 in 2016 (Afiq Aziz, 2019; MIEA, 2020).

There are six most common claims made in the Strata Management Tribunal, and by majority of 80% of the cases are related to collection of maintenance charges, contributions, debts and unit shares (Roznah, 2022b), 10% on matters related to meeting and another 10% on management operations. This is evident according to the COB's annual report, where a total of 22,862 enforcements conducted between 2016 and 2020 were entirely on failure to pay due maintenance charges (Ainul Ashiqin et al., 2022). The main goal to an efficient maintenance work is to achieve a housing quality that is associated with positive effects towards those living independently in the community (Evans et al., 2002). However, such objectives became problems unwittingly caused by failure to pay the maintenance charges to the management (MIEA, 2020), which was 93% out of the overall Tribunal cases.

Failure to fulfil the Tribunal Awards or neglect or default of the Tribunal Award is considered a criminal offence under the strata management act. Between the year 2016 and June 2019, a total of 14,392 cases were filed at the Strata Management Tribunal whilst a total of 901, between 2018 and July 2019 were filed against neglect of the Tribunal Award, Selangor with the highest default case of 417 cases being 46% of the total default award cases (Abu Bakar, 2023).

1.4 RESEARCH AIM

This research aims to evaluate strata management practices in low-cost and low-medium cost strata housing within selected local authorities in Malaysia. It seeks to propose solutions to recurrent issues concerning active management bodies, including joint management bodies, management corporations, or managing agents. Additionally, the study examines common and critical issues related to maintenance fees and maintenance work in strata management, as reported by the commissioner of buildings, strata managers, and strata owners. It also takes into account the forthcoming amendment of the strata titles act and the housing developers act, ensuring that if the strata management act is amended, these acts will be enhanced to address identified

issues while remaining relevant and complementary to each other, rather than contradictory.

1.5 RESEARCH OBJECTIVES AND QUESTIONS

The research objectives in this study are as follows:

1. To ascertain the framework and processes between strata developments and strata management
2. To assess strata owners' satisfaction level towards the maintenance of common property
3. To assess the differences in determining maintenance cost and fees among the low-cost strata categories
4. To analyse the issues and challenges in strata management, and its relation to the maintenance charges
5. To evaluate the effectiveness of existing mechanisms related to strata management practices and collection of maintenance fees.

Based on the above-mentioned research objectives, the study follows these research questions:

1. What are the stages and significance in the establishment of strata management?
2. What influences strata owners / residents' satisfaction in strata living, and management?
3. What are the factors influencing maintenance fees?
4. What are the most critical issues in strata maintenance?
5. How effective are the current mechanisms strata management practices and collection of maintenance fees among associated parties?

1.6 SIGNIFICANCE OF THE STUDY

The findings of this study enhance our understanding of the current landscape of strata management, particularly concerning low-cost, low-medium cost, and PPR housing. It adds value by filling gaps between legal requirements and enforceable procedures, which previous studies have not fully addressed for these specific housing categories. Through cross-referencing, this study sheds light on the most common and critical issues in strata management within affordable high-rise housing, facilitating a comprehensive understanding of the field. Moreover, it offers valuable insights for policymakers, commissioners of buildings, property managers, developers, and strata owners to improve strata management and maintenance practices. The study also reviews potential changes to existing Acts, regulations, and management practices, based on assessments of maintenance charges, costs, and satisfaction levels.

1.7 RESEACRH FRAMEWORK

This section presents a simplified overview of the research methodology and its anticipated outcomes in a structured format. The framework outlined in Figure 1.1 offers a comprehensive overview of the research process and methodologies. The research objectives are accomplished through five main stages: the initial stage, critical understanding, data collection and collation, data analysis, and data synthesis and conclusion.

INITIAL STUDY	RESEARCH DESIGN & FRAMEWORK	Identify issues and subjects of study Identify the importance of the study	Indication of research problems, questions, significance Formation of Aim & Objectives, Scope & Limitation	CHAPTER 1
CRITICAL UNDERSTANDING	REVIEWS OF RELATED STUDIES: IDEAS, ARGUMENTS, DISCUSSIONS, METHODS, IMPLEMENTATION, ISSUES, ETC.	Identify Literature, Quantitative & Qualitative data	Theoretical: Strata Development, Process, types of strata schemes and management, related laws	CHAPTER 2 & 3
		Library Research: Books, Journals, Articles, Reports, etc.	Practice: Issues, Best practices from other countries	
DATA COLLECT & COLLATE	SURVEY ADMINISTRATION, DATA ACQUISITION & GATHERING	Pilot study/ Pre-test	Formation of systematic survey sampling, Framework of Independent & Dependent Variables, Qualitative data, Synthesis and Solutions Method of Data Collection & Analysis Questionnaire survey	CHAPTER 4
		Literature Reviews on Data Collection & Data Analysis		
DATA ANALYSIS	ASSESSMENT OF FINDINGS & TRIANGULATION	Analyse & Evaluate Report & Discuss Significant Findings	Descriptive and inferential analysis of Quantitative data & Qualitative data from Secondary (dataset) data and Primary (survey) data	CHAPTER 5
		Synthesis & Triangulation		
CONCLUSION	CONCLUDES THE STUDY	Identification of strengths, & justifying research significance	Conclusion	CHAPTER 6
	PROVIDING RECOMMENDATION	Identification of strengths, weaknesses for improvements	Proposing recommendations towards empowering strata management	

Figure 1.1 Research Framework

1.8 DEFINITION OF TERMS

Strata Development

Strata development by definition is a building or land development which are divided into parcels, common property and accessory parcels, in which within the Malaysian context is in the form of high-rise property such as flats, condominiums, apartments and even as landed property such as townhouses and landed houses in gated communities.

For the purpose of this study, the term strata development is mainly referring and limited to high-rise residential buildings. This terminology is interchangeable with the term strata scheme and / or strata property throughout this study.

Strata Category / Category of Strata Scheme

This study broadens the scope to include the low-cost, the low-medium cost and the PPR schemes as part of the study. Thus, throughout this study, this term will be repetitively mentioned, which will be in reference to these three categories of strata schemes, especially in assessing the relationship between maintenance, maintenance charges and the strata category.

Low-Cost and Low-medium cost strata

The value definition of a low cost housing in Malaysia went through several controversial discussions as the term 'low cost' in some ways and instances carry the image of affordable housing (Noralfishah et al., 2005). In this study, low cost and low medium cost strata housing deliberately refers to high-rise housing that are sold or rented at relatively low prices and rentals. This study intends to assess both the public and private low-cost strata housing. Private housing in this matter refers to private developments involving the private developers, co-operative societies and persons or a group of individuals (Salleh, 2008).

Public Housing / Program Perumahan Rakyat (PPR)

Aside from the private low-cost and low-medium cost strata schemes, the People's Housing Programme (Program Perumahan Rakyat) is a representative of the public low-cost strata scheme with significant relevance to this study. The abbreviation of **PPR** (Program Perumahan Rakyat) and “**public housing**” will be an interchangeable term used throughout this study.

Strata Owners / Residents / Proprietors / Parcel owners

These are individuals who own or co-own part of the multi-storey property. The strata residents are samples to one out of two survey procedures conducted in this study. Henceforth, the strata residents may be referred to as strata or parcel owners, proprietors and / or occupier. These terminologies are defined accordingly under the Strata Management Act under Section 2 Interpretation;

“**purchaser**” means the purchaser of a parcel and includes any person or body who has acquired an interest as a purchaser in the parcel or any person or body for the time being registered as a parcel owner in the register of parcel owners under subsection 30(1).

“**parcel owner**” means the purchaser or the developer in respect of those parcels in the development area which have not been sold by the developer.

“**occupier**” means the person in actual occupation or control of the parcel or land parcel, but, in the case of premises for lodging purposes, does not include a lodger.

Whilst the term ‘Proprietor’ is defined under the Interpretation Section 4 in the Strata Titles Act;

“**proprietor**” refers to a parcel proprietor, that is to say, a person or body for the time being registered as the proprietor of a parcel, as well as to the proprietor of a provisional block, that is to say, a person or body for the

time being registered as the proprietor of a provisional block unless expressly provided otherwise.

Whereas, according to the Cambridge Dictionary, “*resident*” refers to a person who lives or has their home in a place. Thus, “**strata resident**” is considered to be most fitting to represent the essence of the different terminologies of parties of interest in most part of the discussion throughout this study.

Shared Common Properties

According to the Strata Titles Act;

“**common property**” means so much of the lot as is not comprised in any parcel (including any accessory parcel), or any provisional block as shown in a certified strata plan;

Whereas, according to the Strata Management Act, under the Interpretation of Section 2 of the act stated;

“**common property**”—(a) in relation to a building or land intended for subdivision into parcels, means so much of the development area—
(i) as is not comprised in any parcel or proposed parcel; and(ii) used or capable of being used or enjoyed by occupiers of two or more parcels or proposed parcels; or(b) in relation to a subdivided building or land, means so much of the lot—(i) as is not comprised in any parcel, including any accessory parcel, or any provisional block as shown in a certified strata plan; and(ii) used or capable of being used or enjoyed by occupiers of two or more parcels

In short, in line with the objectives of this study that focuses on the satisfaction towards the strata management and maintenance of the strata building, inclusive of the common property, the term shared common property is simplified and referred to as any part that is not contained in any individual parcel, but which is enjoyed by all.

Strata Management Act 2013 (Act 757) & Regulations (SMA757)

This legislative document is the core term of reference for this study and will constantly be mentioned throughout. Each mention of the term, Strata Management Act, shall refer to this legislative document and its related regulations accordingly.

Maintenance Charges / Fee

According to the strata management act,

“**Charges**” means any money collected to be deposited into the maintenance account.

For the purpose of this study, the terminology of maintenance charge and maintenance fee will be interchangeably used throughout. Despite the interchanges, both terminologies are written with the same intention and definition, that is the amount payable by the parcel owners to the management body for maintenance and management purpose, fulfilling one part of the parcel owners’ responsibilities under the strata management act.

Management Body

The management bodies that may be in the form of a Joint Management body (JMB) or the Management Corporation (MC) varies according to the different stages of strata management operation. The JMB, which consists of purchasers and tenants occupying the strata building and the strata developers is intended to ensure self-management prior to the formation of MC (Khalid et al., 2017). The MC comes into existence upon the expiry of the preliminary management period, post JMB period. Both the JMB and MC play significant roles and duties in managing and maintaining strata buildings, which are delegated responsibilities under the provision of Act 757. Their responsibilities include the duties in relation to accounts, including the opening and managing the said account, the duty to convene first annual general meeting, to inform its name to the Commissioner of Buildings, as well as the duty and power to maintain and manage the strata buildings as registered. These duties will be the baseline of focus for this study,

determining the most common and significant issues in operating a strata management body after the gazettelement of the Strata Management Act 757 in 2013.

“**management corporation**” means the management corporation which come to existence under the Strata Titles Act 1985.

The interpretation under the Strata Titles Act stated;

“**management corporation**”, in relation to any subdivided building or land shown in a certified strata plan, means the management corporation established under section 17.

Section 17 of the Strata Titles Act mentions that the establishment of a body corporate known as the management corporation is a result of officiated opening of a book of the strata register in respect of a subdivided building or land, accompanied by the issuance of certificate of certifying the establishment of the management corporation by the Director of Lands and Mines for the State or the Federal Territory and includes a Deputy Director of Lands and Mines.

“**management committee**”, in relation to a management corporation, means the committee of the management corporation elected under section 56

Section 56 mentions the election of management committee that shall perform the management corporation’s duties and business on its behalf and has the power to exercise the management corporation’s powers. This committee member is inclusive of representative of the subsidiary management corporation, if in existence.

“**joint management body**” means the body established under section 17.

Section 17 in short refers to the establishment of the joint management body upon the convening of the first annual general meeting of the joint management body.

”**joint management committee**”, in relation to a joint management body, means the committee of the joint management body elected under section 22.

Section 22 mentions that the joint management committee is made up of elected personnel who are imposed with restriction or direction of the general meeting, to perform the joint management bodies business on its behalf and permitted to exercise the powers of the joint management body.

“**managing agent**” means a person who is appointed by the Commissioner under section 86.

Section 86 mentions that the appointment of a managing agent by the Commissioner is a result of default by the developer, joint management body, management corporation or the subsidiary corporation as the case may be, to carry out the duties and powers of the said management respectively.

In place of the different stages of strata management body, corporation and committee, this study will consistently refer to the developer management, management corporation, joint management body and managing as “**management body**” or “**management office**” to facilitate discussions.

Commissioner of Building (COB)

The COB in respect of a local authority area is necessary to be appointed for the purpose of administering and carrying out the provisions of the Strata Management Act 757, under Interpretation Section 2 of the Act that stated;

“**Commissioner**” means the Commissioner of Buildings appointed under the subsection 4(1), includes any Deputy Commissioner and other officers appointed under subsection 4(1) to exercise the powers or perform the duties imposed on the Commissioner.

According to the Strata Management Act 757, the COB under this act may perform the duties and powers as conferred upon. The COB’s responsibilities include overseeing the registration of each Joint Management Body (JMB) and the Management Committee (MC) in fulfilling their responsibilities towards the residents and the residential strata properties, one of which is related to the COB’s duties under The Strata Management (Compounding of Offences) Regulations 2019, allowing the Commissioner of Buildings (COB) to compound offences committed by the strata owners, the developers as well as the management body.

1.9 RESEARCH LIMITATION

It should be noted that this study covers selected strata schemes within the Klang Valley area, with the aim to find the most fitting framework for quality strata management, considering the rates and services provided within this area, that are considered to have

an abundance of varieties of strata residents' demography as well as the variance in active strata management operators by comparison to other states in Malaysia. Indeed, the desired quality strata shared property to be in its best quality for all classes and location of strata despite different facility provision, and to present a clear vision in proper facilities planning to reach satisfactory strata facility management. The study is confined within questionnaire surveys, distributed amongst the representatives of the JMB/MC and the strata residents. The administration of the data collection process was also limited to the Restricted Movement Order (MCO) as announced by the Government of Malaysia due to the outbreak of the Corona Virus (Covid-19). The data collection was conducted during the Movement Control Order (MCO) period, hence majority of the strata schemes approached are unable to fulfil the site visit request for both the site inventory and survey. Data collection was still made possible, however, based on the rest of the schemes that are able to accept visitors and at the time are not threatened by the pandemic or gazetted as red zone.

1.10 RESEARCH STRUCTURE

In reference to the Figure 1.1 Research Framework, this study comprises of six chapters.

Chapter One

The first chapter, the introduction, gives an overview of the field of study, providing the background study, problem statement, objectives and research questions. Upon identifying the issues, problem statement, aims and objectives for the study, the research further explores the structural and systematic research manner in addressing the research questions. This study can easily be understood by further sub-divide the research stages into five stages which comprises of the initial study, the critical understanding, the data collection, analysis and finally the data synthesis.

Chapter Two

Chapter two deliberates on related literatures, on theories and concept of the study, inclusive of strata laws, development and management. The discussion delivers the concept surrounding the study area, the current scenarios and the issues relating to the management and maintenance of strata development laws and processes.

Chapter Three

Chapter three discusses the practices of building management and maintenance of common facilities. It looks into matters on quality management, factors influencing its costs, as well as a selective comparison on best practices of other countries on building maintenance and management.

Chapter Four

The fourth chapter describes the procedures adopted in this study. It explains and justifies the methodology of data collection and the data analysis.

Chapter Five

Chapter five presents the data collected, describing the data set and the result of analysis. This chapter is divided into three sections, namely, analysis on COB's unpublished data set, strata residents' survey responses and management bodies' survey responses. This chapter will then be concluded with an in-depth discussion on result triangulation, to further produce a conclusion and recommendation for the study.

Chapter Six

Finally, this chapter will conclude the research by justifying each research objectives and research questions. Further on into chapter six, recommendations are will be presented based on the triangulated outcome and conclusion of the study.

CHAPTER TWO

RESIDENTIAL STRATA DEVELOPMENT

2.1 INTRODUCTION

This chapter discusses on the overview of the property development trends in Malaysia, strata developments, inclusive of the types of strata developments, the development processes, as well as the concept of strata management.

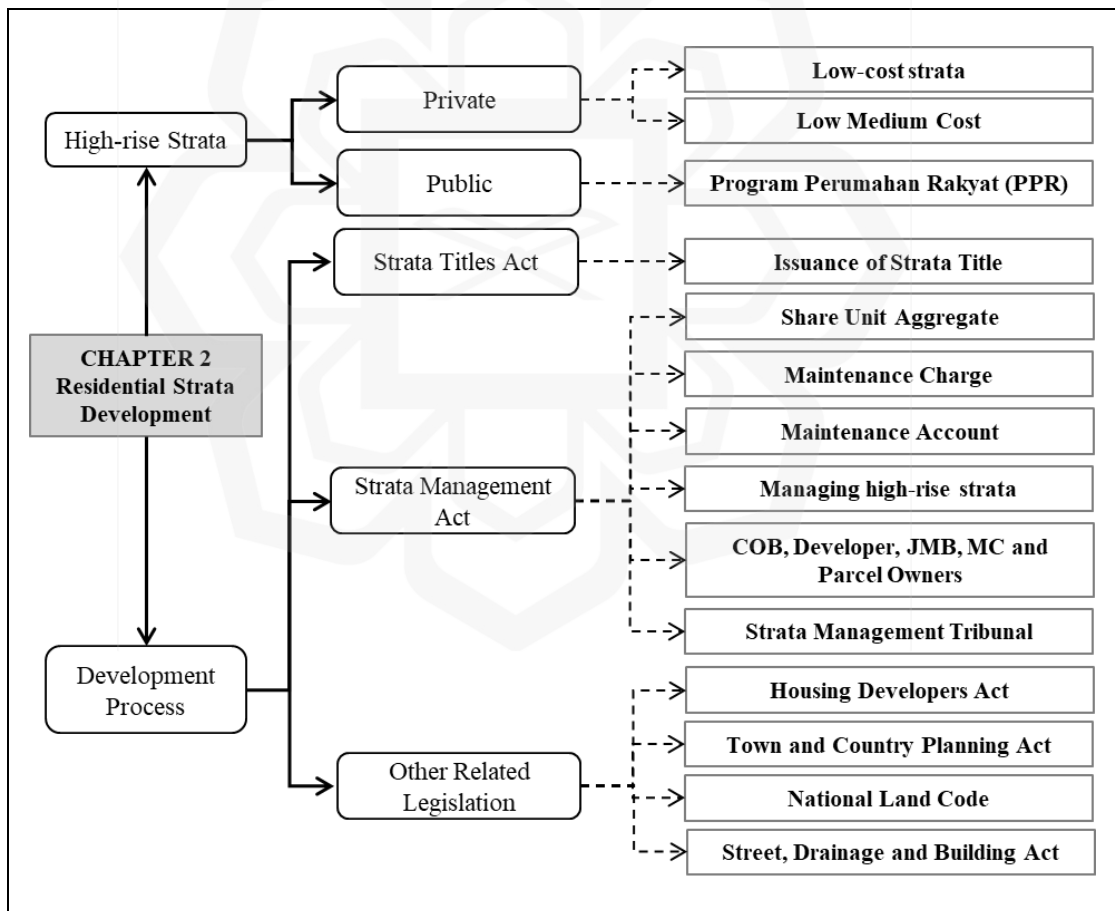


Figure 2.1 Literature Framework on Strata Laws, Development and Management

2.2 STRATA DEVELOPMENT

Housing needs are dependant towards the population growth, household formation, housing stocks and occupancy rates (Shahedin, 2020). The variance of housing developments in Malaysia has increase the dwelling options according to their economic state, demand and social needs. Housing demands also increases in an economically focused cities and areas, specifically in meeting job demands or career opportunities which has led to one of the many reasons for the movement or the migration from the rural and the sub-urban areas to urban, heavily populated areas.

In order to cater to this big chunk of job opportunities, access to the working place, location and distance, has become the most significant factor and preference amongst urban dwellers in finding an accommodation, whether it may be by owning or just accommodation via tenancy agreement. Dwelling options in Malaysia diverse between landed property that commonly includes terraces, semi-detached, and bungalows, while high-rise properties commonly includes flats, apartments, condominiums (M. M. Hassan et al., 2021) (see Figure 2.3, page 23).

The property market transaction records by the National Property Information Centre (NAPIC) data 2021 shows that the residential sectors transactions are up to 70% (42,620 units) compared to other sectors. The total transacted property between strata and landed, strata development shows higher number of transacted units within the 3rd quarter of 2019 and the 3rd quarter of 2020, the comparison can be seen in the following Figure 2.2. It can be seen that the high-rise strata are showing a more significant difference compared to the landed properties. Transaction of strata properties significantly shows percentage (18%-28%) higher than the transactions of landed properties in all three quarters.

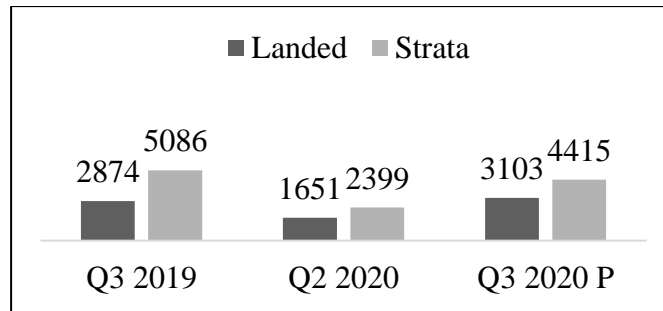


Figure 2.2 Residential Property Transactions According to Type (unit)

Source: (NAPIC, 2020)

However, mismatch continues to occur in housing demands by movement of talents to urban areas, and the housing supply triggered by land availability, labour, construction materials and other development costs that indeed plays significant factor in housing supply (Shahedin, 2020). The mismatch of supply and demand is no doubt has become a challenge towards housing ownership, from another aspect, the housing market also poses challenges in housing ownership especially in regards to unaffordability, due to the fluctuation of housing prices. There is also the matter of income in housing affordability discussion as it reflects the prospective purchasers' monthly expenditure, ability to get housing loan as well as other financial commitment (Ling & Almeida, 2016; Mariana et al., 2020).

Affordability has many relative definitions across many studies over the years. Interpretation and programmes related to low-cost and affordable housing has evolved from the rural low-cost housing programmes that was launched in 1950, to low-cost housing development programmes involving state governments in 1957, to the introduction of the National Housing Department in 1972, up until the introduction of the low-cost housing formal guideline in the Fourth Malaysia Plan (1981-1985). Moving forward from existing programmes to the new guidelines, the Government tabled to provide affordable housing that include low-cost housing as part of the movement, as long as it shares the price range, its quality standard and allocation for the low income public (Noralfishah et al., 2005). Pushed forward to recent studies, the idea of housing affordability, in general, is a term that stresses on the ability of the

income to meet the ability to pay for the subjected housing purchase price (Mariana et al., 2020; Najihah & Ahmad Ariffian, 2021; Shahedin, 2020).

In support of private affordable housing supply, the Government has imposed the 30% quota for low-cost housing development since 1982 as part of many efforts in providing affordable housing for all (Jabatan Perumahan Negara, 2001). Efforts from the Governments' side also includes policies and housing programmes at state and federal level. Low-cost housing provided as part of the federal's initiative includes the establishment of Perbadanan Perumahan 1Malaysia atau PR1MA, Rumah Wilayah Persekutuan (RUMAWIP) under the Department of Federal Territories (Kementerian Wilayah Persekutuan Malaysia), Rumah Mesra Rakyat (RMR) by the SPNB (Syarikat Perumahan Negara Berhad), as well as Perumahan Penjawat Awam Malaysia (PPAM) and Program Perumahan Rakyat (PPR) under KPKT. Whilst on the state level, four states, Selangor, Johor Perak and Melaka have intro respective affordable housing policies (see Figure 2.3 and Table 2.2, page 25).

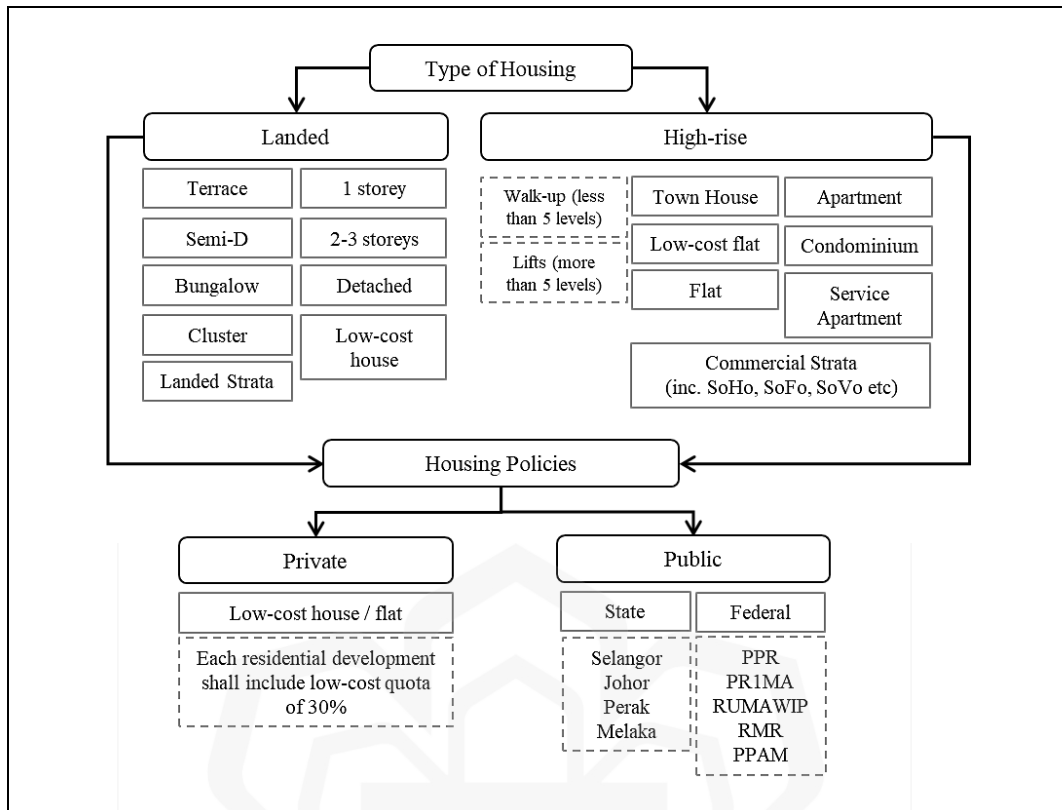


Figure 2.3 Types of housing, Landed and High-rise Strata Scheme

Source: (M. M. Hassan et al., 2021; Jabatan Perumahan Negara, 2018; Ju & Saari, 2010)

2.2.1 Low-Cost Low Medium Cost Strata

The low-cost housing has gone through series of reformation that develops and shift in trend since as early as post-independence 1957 - 1970, to introducing policies on housing for the poor between 1971 to 1985, which later goes through a market reform in 1986 to 1997. In which during this period, the construction of low-cost housing increased to hundreds of thousands of units, where the low-cost housing reaches its peak under the 6th Malaysian plan with 261, 386 units, 82% by the private sector and 18% by the public sector (J. Liu & Ong, 2021). Later in 2011 and 2015, the objective of the National Transformation Policy which was introduced in 2010, include to raise the living standard of low-income households.

Despite policies on the trends and developments for the low-cost housing, the value definition of a low cost housing in Malaysia went through some controversial discussion as the term 'low cost' in some ways at the same time carry the image of affordable housing (Noralfishah et al., 2005), as the initial intention of the low-cost housing policy aims to ensure that houses or accommodation is affordable for the low income community. Over the years, countless studies have been done relating to low-cost housing, hence forth the shifts of its definition over time, explaining following the economic trends over the decades. Initially, the Fourth Malaysian Plan (1981-1985) outlined the characteristics of a low-cost housing includes selling price of not more than RM25,000 per unit, targets buyers with monthly income of less than RM750, the property may be built as flats, single story house or detached house, with minimum design of a standard built up area of 550-600sq. feet, two bedrooms, a living room, a kitchen and bathroom/toilet. However, later in 1988, the price per unit is deemed to be no longer relevant, considering the land cost and the overall economic stance, hence a revision was made, and further revisions are made over time to ensure price and economic relevancy.

In short. the change in the low-cost strata values has significantly change between the 1981 to 1985, where low-cost strata pricing at RM25,000, which shifts again in 1988 to 2000, pricing capped at RM42,000 depending on its location. At this point of time, more studies were done on the relevancy and relationship of the median income and the pricing of affordable housing, as the price range increases along with the target income group, which has risen to RM1,500.

Similarly, the price range for the low-medium cost has also gone through a significant shift over the years. The price range of a unit that ranged between RM25,001 to RM60,000 in 1981to 1985 increased in 1988, pricing between RM42,001 to RM60,000. Then in the year 2000, another revision was made which maintains applicable to date, at the price range of RM48,000 to RM70,000 per unit. The shift in low-cost price range and its target group are simplified in the following table:

Table 2.1 Low-cost and low-medium cost prices over the time

Year	Category	Price Range per unit	Target Income Group
1981-1985	Low-cost	RM25,000 and below	RM750 and below
	Low-Medium cost	RM25,001 – RM60,000	RM751 – RM1,500
1988-2000	Low-cost	RM42,000 and below (depending on location)	RM1,500 and below
	Low-Medium cost	RM42,001 – RM60,000	RM1,501 – RM2,500
2000 - Current	Low-cost	RM42,000 and below (depending on location)	RM1,500 and below
	Low-Medium cost	RM48,000 – RM70,000	RM1,501 – RM2,600

Source: (Jabatan Perumahan Negara, 2018)

While the whole country refers the house pricing trends as shown in Table 2.1, there are four state that have made further studies and introduced their respective standards and policies to suite the income median within their respective states, Selangor, Johor, Perak and Melaka, i.e., Rumah Perakku (RP), Rumah Selangorku, and Rumah Transit Belia Johor to name a few.

Table 2.2 State level Affordable Housing Policy

State	Category	Minimum Area	Maximum Price	Eligibility
Selangor	High-rise (Apartment Type A)	700 sq. ft	RM42,000	Household income below RM3,000.
	High-rise (Apartment Type B, C, D, E)	750 - 900 sq. ft	RM100,000 – RM250,000	Household income below RM10,000.
	Landed (Townhouse)	700 sq. ft	RM42,000	Household income below RM10,000.
	Landed (Townhouse)	750 – 1,000 sq. ft	RM100,000 – RM200,000	Household income below RM10,000.
	Landed (Terrace)	900 sq. ft	RM250,000	Household income below RM10,000.
Johor	High-rise	720 sq. ft	RM42,000	Household income below RM3,000.
	(Landed / High-rise)	850 sq. ft	RM80,000	Household income below RM4,500.
	(Landed / High-rise)	1,000 sq. ft	RM150,000	Household income below RM6,000.
Perak	RP 1 (Landed / High-rise)	850 – 950 sq. ft	RM70,000 – RM90,000	Household income below RM3,860.

State	Category	Minimum Area	Maximum Price	Eligibility
Melaka	RP 2 (Landed / High-rise)	950 sq. ft	RM70,001 – RM180,000	Household income below RM7,000.
	RP 3 (Landed)	1,000 sq. ft	RM180,001 – RM250,000	Household income above RM7,000.
	Landed	1,000 sq. ft	RM180,000	Household income below RM8,000.
	High-rise	750 sq. ft	RM35,000	Household income below RM3,000 (First home buyer)
	Landed	850 sq. ft	RM80,000- RM100,000	Household income below RM6,000
	High-rise	750 sq. ft	RM42,000	Household income below RM3,000 (First home buyer)
	Landed	1,000 sq. ft	RM150,000- RM180,000	Household income below RM8,000

Source: (LPHP, 2023; LPHS, 2023; LPM, 2023; Osman, 2021)

Movements in support for low-cost housing developments has been showing positive growth since 2012. Evidence suggests that the low-cost housing market for units below RM250,000 showed a rise to 58.3% in Q4 of 2016 from the previous 52% in Q3 2014 (Jabatan Perumahan Negara, 2018). Recent evidence in Table 2.3 shows a general increase in existing stock of the low-flats and flats in general between 2018 and 2022, especially in Selangor, Johor, and Pulau Pinang.

Table 2.3 Existing Stock (units) for low-cost flat and flats, as of 2022 update

State	Existing Stock (2022)		Existing Stock (2018)	
	Low-cost flat	Flat	Low-cost flat	Flat
WP Kuala Lumpur	99,637	35,330	100,037	35,330
Selangor	183,198	108,636	183,014	106,149
Pulau Pinang	68,939	112,402	62,545	106,562
Johor	50,949	27,068	50,200	14,779
Melaka	3,416	9,107	3,336	8,245
Perak	8,269	5,590	8,269	4,573
Kedah	7,460	1294	6,742	998
Negeri Sembilan	6,393	8,272	6,393	8,212
Pahang	4,848	3,726	4,884	3,690

State	Existing Stock (2022)		Existing Stock (2018)	
	Low-cost flat	Flat	Low-cost flat	Flat
Terengganu	5,951	826	5,951	826
Sabah	27,807	15,569	28,047	14,737
Sarawak	8,687	5,598	8,244	5,790
Kelantan	1,031	2,221	813	1,221
Perlis	1,438	396	1,378	396
Total	478,023	336,035	469,853	311,508

Source: (National Property Information Centre (NAPIC), 2022b)

Efforts in improving housing supply for the lower income population continues through public developments, especially developments of new PPR schemes.

2.2.2 Program Perumahan Rakyat (PPR)

PPR is an accommodation programme that aims to ensure the minimum acceptable standards and amenities for better housing condition, especially for the low-income groups. The initial objective of PPR was to address the low-income household demand for affordable housing in urban areas. The development of PPR schemes were designed to be equipped with the basic infrastructure and amenities within strategic location in urban areas (EPU, 2015). According to Y.B. Datuk Halimaton Saadiah Binti Bohan (2014) during the Second Meeting of the Second Term of the Selangor State Assembly Year 2014, the minimum rental fee policy for the PPR unit maintains at RM124.00 per month, excluding the maintenance fee. Any changes, an increase or decrease, from the base amount may vary from case to case, within the Selangor's context. According to KPKT's PPR application platform, the PPR rental rate has been at a constant RM124.00 per month, and has never gone through readjustments ever since the programme was first introduced in 1997. Hence, the Malaysian government continues to identify the target groups of the low income, the group that is perceived to be eligible to be receiving the housing subsidies and access to public housing (Wahi et al., 2018).

This housing program that is mainly provided by the Ministry of Housing and Local Government (KPKT) are generally complete with characters like the total area of

no less than 700sq. feet, each unit is designed with 3 bedrooms, 1 living room, 1 kitchen area, and 2 bathrooms/toilets. In terms of the overall PPR schemes' character, each PPR scheme should be equipped with common facilities inclusive of community centre / multipurpose hall, prayer hall (surau), business or food and beverage space, kindergarten, access for people with disability (PWD), open space or playground and garbage house. Similar to the dwelling type of those in private strata schemes, PPR too has these two types of dwelling, either ownership or rental, where KPKT also allows for PPR owning programmes, with selling price of not much difference from the private schemes, at a selling price of RM35,000 per unit in peninsular Malaysia and RM42,000 per unit in Sabah and Sarawak.

True to its purpose, the number of units in completed PPR projects across the country between the year 2020 until 2022 continues to increase as Table 2.4 shows. It is observed that the accumulated number of units in the whole countries have increased, despite some states have no new PPR projects. Between the year 2020 and 2021, there is an increase of 2,429 ownership units, meanwhile between the year 2021 and 2022, there is an increase of 1,000 units under the ownership scheme. In 2022, Pahang has the highest units under the ownership scheme, whilst WP Kuala Lumpur has the highest number of units under the rental schemes. WP Kuala Lumpur has the highest number of PPR units, a total between both schemes, summed up to 34,862 units in total.

Table 2.4 PPR units in completed project and type of dwellings

	2022 (units)		2021 (units)		2020 (units)	
	Ownership	Rental	Ownership	Rental	Ownership	Rental
Johor	0	11,195	0	11,195	0	11,195
Kedah	3,016	1,894	2,016	1,894	2,016	1,894
Kelantan	2,968	300	2,968	300	2,000	568
Melaka	336	1,100	336	1,100	336	1,100
Negeri Sembilan	250	420	250	420	250	420
Pahang	4,168	0	4,168	0	3,768	0
Perak	99	1,175	99	1,175	99	915
Perlis	0	1,428	0	1,428	0	1,428
Pulau Pinang	231	768	231	768	231	768

	2022 (units)		2021 (units)		2020 (units)	
	Ownership	Rental	Ownership	Rental	Ownership	Rental
Sabah	0	23,009	0	23,009	0	23,008
Sarawak	1,775	3,016	1,775	3,016	1,124	3,016
Selangor	1,880	3,304	1,880	3,304	1,880	3,304
Terengganu	0	1,002	0	1,002	0	1,002
WP Kuala Lumpur	2,100	32,762	2,100	32,762	1,690	33,172
Total	16,823	81,373	15,823	81,373	13,394	81,790

Source: (KPKT, 2020b, 2021a, 2022)

This minimum standard, and cost though it promotes better living for the low-income group, the building condition and strata living quality has become a concern for many. Despite the increasing number of new PPR developments, there has been significant issue occurring relating to the ineffective facility management. Due to the low-rental rates, most PPR schemes faces poor maintenance or left with badly damaged facilities, most common PPR maintenance issue includes failure or burst of water pipe, clogged plumbing, and malfunctioned lifts to name a few (A. T. Goh et al., 2011; Mahyuddin et al., 2018; F. C. Sulaiman et al., 2016).

In a report published by Khazanah Research Institute in March 2023, the report highlights that while PPR was introduced to solve supply and elevate housing market failure for the low-income population, issues were not limited to the construction quality but also the building condition and unit maintenance of the existing PPR schemes. The poor quality, and defects of PPR as products of possible construction substandard, the likes of faulty workmanship, poor construction design and / or material is a prolonged discussion (Ahmad Ezanee et al., 2015; A. T. Goh et al., 2011). Despite the complaints, the original purpose of PPR persevere , that is to provide minimum housing standard, where residents, owners and tenants alike make do with their respective satisfaction levels and low expectations (A. T. Goh et al., 2011).

2.3 STRATA LAWS AND RELATED LEGISLATIONS

The demand and supply for vertical strata has significantly increased over time, with land scarcity in urban areas, vertical strata gain even more popularity for new development amongst developers. Where strata development used to be a straight forward high-rise residential buildings, however, with lifestyle varies overtime, the concept of strata living has evolved to more complex developments, the likes of luxurious condominium with podium and limited common properties, as well as advance landscape features provided within the building plan.

Several laws were introduced to cater to the strata living that are self-regulated by the uniquely joint governance by all owners. The basis of the strata administration in Malaysia are mainly divided into two (2), which is the strata title and the strata management. The Strata Titles was first introduced in 1985, known as the Strata Titles Act 1985 (Mohamad et al., 2017). Initially all subdivided properties were governed by provisions under the National Land Code, which later revealed its inadequacy leads up to the drafting and introduction of Strata Titles Act (STA). Even so, the rapid demand and development of stratified properties lead to series of loopholes within the strata management scene, especially from the maintenance and management aspect of the common properties. The Building and Common Property (Maintenance and Management Act) 2007 (Act 663) is then introduced to fulfil the strata management needs. Act 663 that are limited to the establishment of the Joint Management Body (JMB), appointment of managing agents, establishment of maintenance account and sinking fund, eventually found itself to be incapable to resolve the complex nature of a strata management that involves more parties and matters than it was initially anticipated. For example, poor collection for maintenance fund has a consequential effect towards the overall building safety, long term building condition that as a result shall reflect onto the property's value. Property value is considered a long-term financial planning and budgeting that influences investment decision making. The result of a valuation significantly factored in long term preservation, maintenance, restoration and even replacement. The valuation method and calculation can be chosen to estimate market value, rental or rating purposes (Hamzah et al., 2022).

Later, the Strata Management Act 2013 (Act 757) was introduced to ensure the uniformity of law and policy with respect to local authorities to make laws relating to the maintenance and maintenance of stratified properties and common property within Peninsular Malaysia. This Act governs the enforcing authority as well as the roles and functions of management bodies and matters relating to management, aside from matters dealing with strata titles. Studies have argued that strata law in reality despite the given powers to the Management Bodies, it still fails to implant good governance in strata communities. The strata management scenarios face many challenging aspects from the duty of managing body, responsibilities of strata owners, to the financial transparency of maintaining and managing the stratified property, the common property. Common facilities in reference to the Strata Management Act 757 is defined as areas in relation to a building or land intended for subdivision into parcels, that is not comprised in any parcel or proposed parcel and that are accessible to be used or enjoyed by all strata owners and tenants within the strata scheme.

Following this brief historical development of strata management law, the following section will further elaborate on the detailed differences in functions of the current Strata Titles Act (STA318), and the latest revision on Strata Management Act 2013 (Act 757) (SMA757).

2.3.1 Strata Titles Act 1985 (Act 318)

Strata title in principle issued to the person who owns the property and are entitled to use the properties similarly to those with an individual title. The strata title shall contain essential information such as the name of owner(s), the description of the property, list of responsibilities such as registered easements, caveats, charges and etc, which is in accordance to the Strata titles Act. In brief, the Strata Titles Act is an Act that facilitates the subdivision of building into parcels and the disposition of titles and for purposes connected therewith, the Act's structure is self-explanatory, covering matters relating to subdivision, registration, provisional block, rights and obligations, management as well as termination, as shown in the following figure:

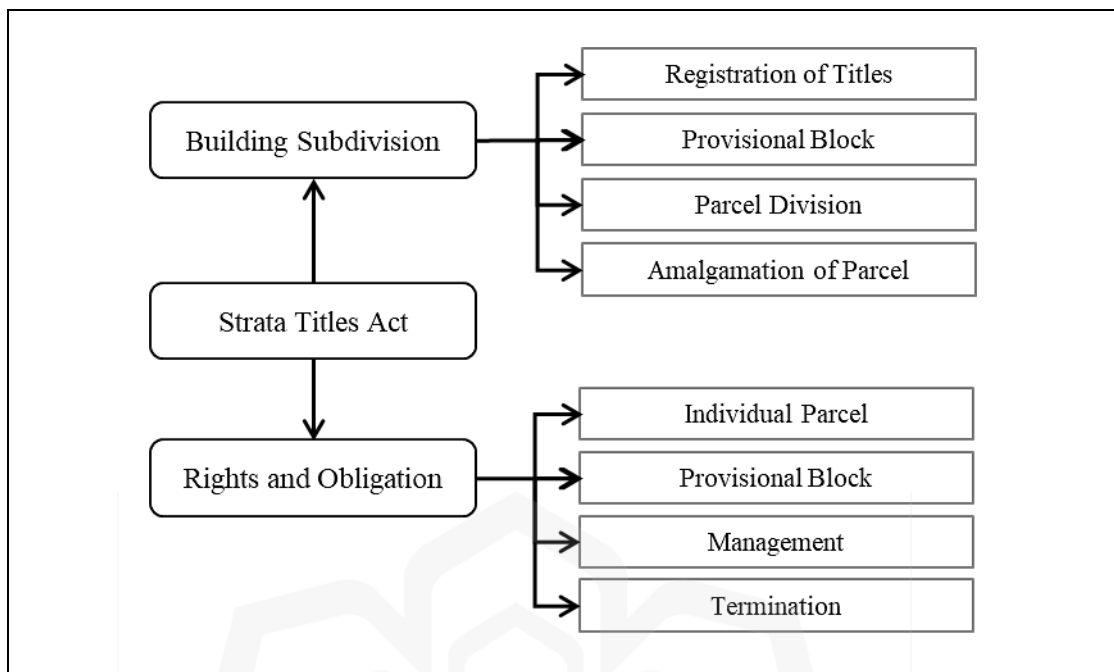


Figure 2.4 Simplified structure of Strata Titles Act

Source: Strata Titles Act 1985 (Act 318)

According to the Act 318, the property built on the said land are divided into “parcels” and “common property. Each parcel shall consist of an individual unit for which a separate strata title will be registered on. While the non-individual units that forms part of the building would make up the common property whereby this will be issued as another separate title that will be under the care of the management body of the strata scheme on behalf of the parcel unit owners.

Having said the purpose of the Strata Titles Act, the most prevailing issue is the delayed issuance of the strata titles itself, which is often the main problem faced by the strata purchasers. While the current Strata Title Act recommends for the delivery of the Vacant Possession (VP) and the strata title simultaneously, however, the time consumed between the VP and the strata title issuance are not similar and can be concluded to be a hindrance for such synchronization (JKPTG, 2020).

Procedures involve towards issuance of the strata title includes the procuring of the Certificate of Proposed Strata Plan (CPSP) (see Figure 2.5, page 35, also see Figure 2.17, page 81 and Figure 2.18, page 83). CPSP is a set of documents required by the Licensed Land Surveyor prior to submitting application for building or land subdivision for the issuance of strata title to the JKPTG office. Within 3 months from the completion of the main structure, the licensed land surveyor shall submit necessary requirement for the CPSP application, that includes providing the schedule of parcels and strata plan proposal to the Department of Survey and Mapping Malaysia also known as JUPEM (Jabatan Ukur Dan Pemetaan Malaysia). Moving forward, JUPEM will make necessary assessment and approval or otherwise within 30 days from the receipt of the completed application documents and requirement (JUPEM, 2015).

The next stage will be the process of issuing the strata title together with the delivery of vacant possession (VP). VP in nature only requires the completed building with the issuance of the Certificate of Completion and Compliance (CCC) of the said development, a legal proof that the building is fit and safe for occupancy both internal and external. The CCC inspection is realistically not as time consuming as the combined issuance period of CPSP and strata title, hence a lot of the strata development have difficulties in issuing VP and strata title simultaneously. Evidently, in June 2019, 136 strata schemes were given approval to have the VP issuance without the strata titles (JKPTG, 2020). The consequence of delayed issuance or transfer of the strata title has an immense impact towards the strata management especially in the establishment of the Management Corporation (MC).

The success of establishing an MC can only be achieved with the complete minimum transfer of individual strata titles, 25% share unit aggregates. The developers are responsible to apply for the strata titles during the construction stage on behalf of the purchaser. A study was conducted by Rubiah et al., (2018) on the efficiency of strata management with conclusion that majority of 57.7% responded that poor compliance to rules and regulations was one most common cause of late issuance of the Strata title. This cause was in regards to the difficulties faced by developers in meeting the requirements under Section 9 and 10 of the Strata Title Act (Kamaruzzaman et al., 2010). While 25% due to poor or no cooperation from the developer, 11.5% from poor

cooperation from authority on matters relating approval processes, and the remaining 5.8% respondents felt that the poor compliance were due to poor cooperation from the unit owners where they neglect and /or ignore their rights and responsibilities especially on payments of the maintenance charges.

As far as the developers are concerned, the application for strata title starts to take place during the construction stage, starting from the application for the Certificate of Share Unit Formula also known as Sijil Formula Unit Syer (SiFUS), that is to be issued by the Land and Mines office / Pejabat Tanah dan Galian (PTG), preceding to the sales of strata property. Application of SiFUS is required to be accompanied by the following documents (REHDA, 2016):

- i. Proof of resolved land matters;
- ii. Share Unit Formula;
- iii. Schedule of Parcels as signed by Licensed Land Surveyor and Architect/Engineer;
- iv. approved Building Plan; and
- v. other related administrative letters, payments and etc.

Upon the completion of the strata building' super structure, the developer can now apply for the issuance of Proposed Strata Plan (CPSP) by the director of Department of Survey and Mapping Malaysia (JUPEM or Jabatan Ukur dan Pemetaan Malaysia). Ideally, the application for issuance of the strata title should be done within one month after the issuance of the CPSP, in order for the strata title to be issued simultaneously upon the delivery of vacant possession (Kamaruzzaman et al., 2010; REHDA, 2016). Failure to keep within the time frame may cause the delay in issuance of the CPSP and consequently on the issuance of the strata title, objectively affecting the setting up of the MC. Based on the elaborated overview of the processes and related legislation compliance, Figure 2.5 illustrates the above-mentioned processes, showing steps to be taken by the developer upon receiving the building plan approval.

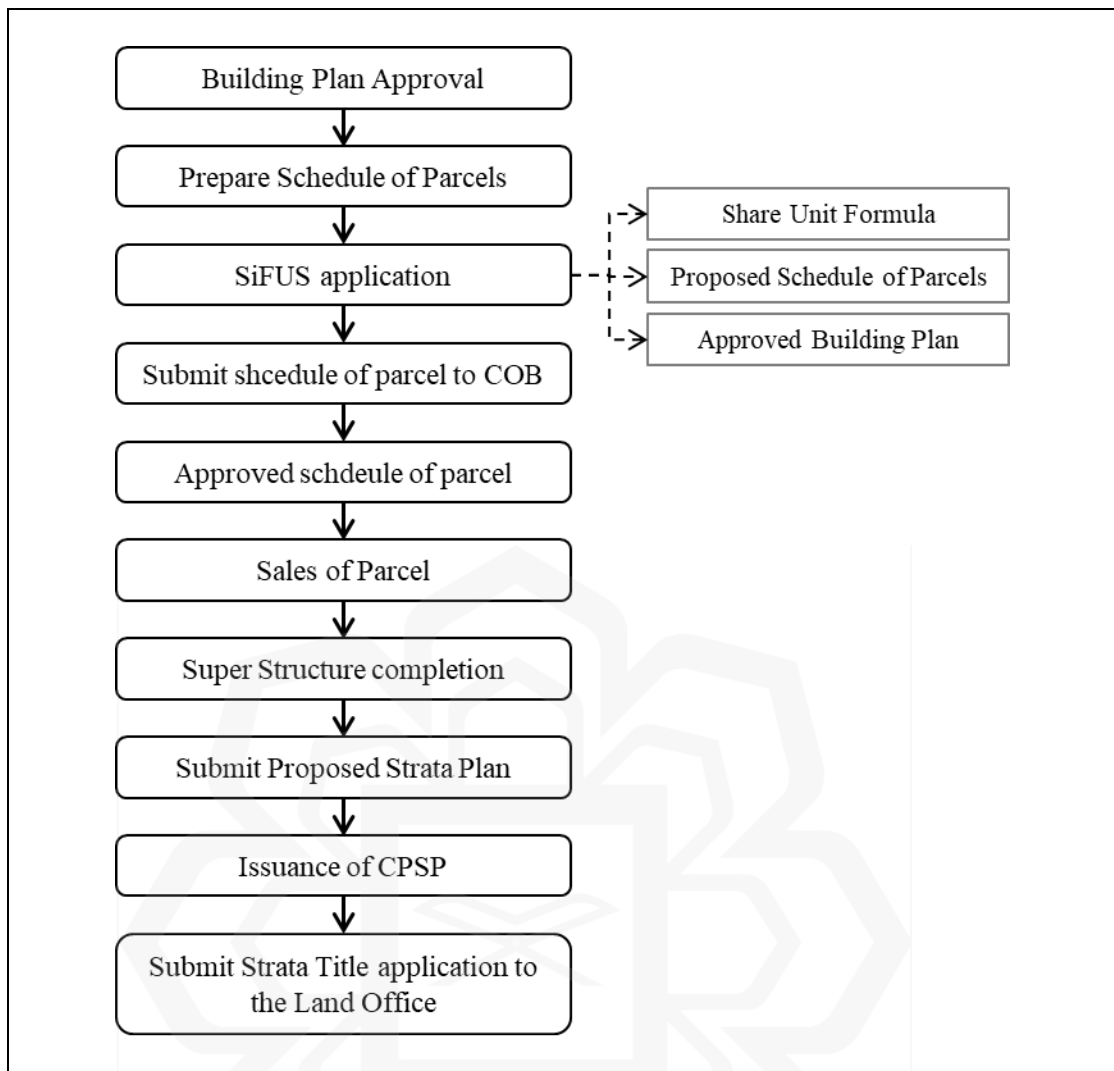


Figure 2.5 Procedure towards Strata Title application

On the other hand, should the developer have complied with the ideal time frame for necessary application and issuance, the fault in delay of strata title may be caused by the purchaser or the strata owner themselves. As the case may be, upon the application for strata title by the developer on behalf of the purchaser, the next stage is to have the transfer of title, as previously mentioned, the “perfection of transfer”. This stage has cost implication of around 2%-3% of the property price towards the strata owners (Donovan & Ho (BD), 2020; National House Buyers Association, 2007), which has become one of the most common reasons for the delay of the strata title transfer by the default of purchasers (Donovan & Ho (BD), 2020). As a result of this delay, if less

than the minimum 25% of strata owners have yet to perfected the strata title transfer, the MC cannot be formed.

2.3.2 Strata Management Act 2013 (Act 757) & Regulations

All related roles and responsibilities in managing and maintenance as well as the rights withhold with the strata titles are spelled out under the Strata Management Act. While the gazettelement of the Strata Management Act have included the definition and the duties and roles each of the parties involved and regulated under its provisions, covering from the top of the administrative hierarchy down to the bottom line or the end user of the act and regulation, provisions and matters under the Strata Titles Act should also be monitored and ensured it compliance by the management bodies. The latest amendment shows the 11 Parts, 17 Chapters and 153 Sections that governs strata management, that is simplified into the following Figure 2.6.

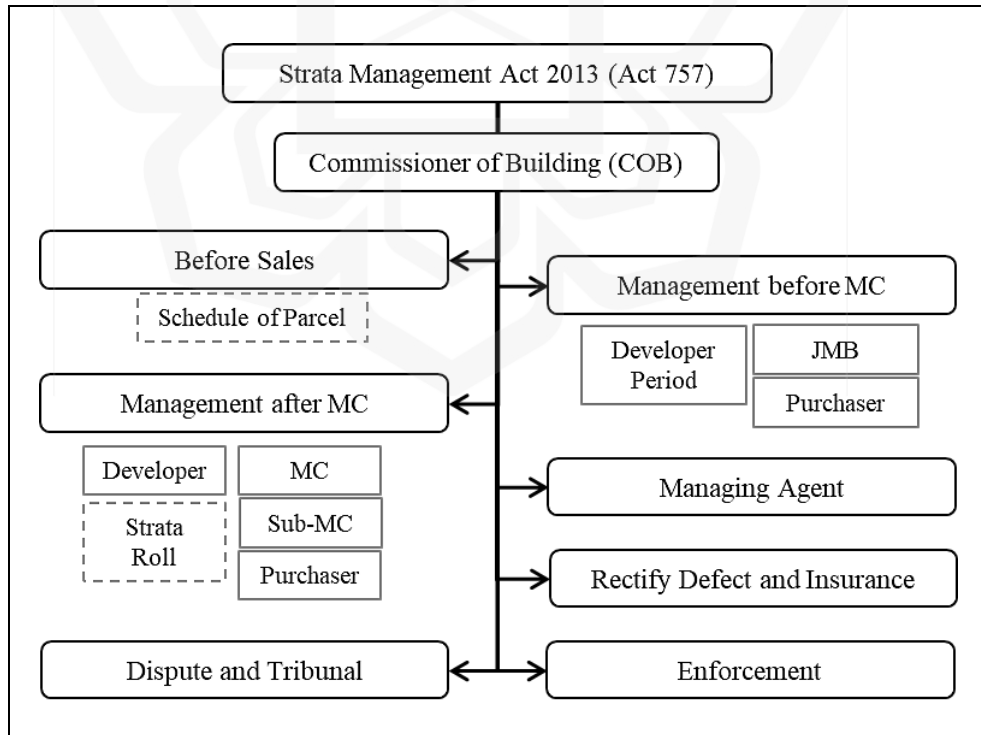


Figure 2.6 Simplified framework of Strata Management Act 757

Source: Strata Management Act 2013 (Act 757)

Based on the structure of the Strata Management Act 757 (SMA 757) above, the act in general is under the minister of the Commissioner of Buildings (COB), that are appointed according to each respective local authority. The Strata Management Act 757 was structured in a manner that the relevant party are able to refer to roles and responsibilities according to the stages of the management bodies, starting from the developer's management period, the JMB and finally the MC. In simple terms, this legislation promotes self-regulatory powers of the strata management bodies through internal decision making processes (J. Z. Wong, 2019).

Under each stage, the sequence of each establishment and responsibilities are explained, as an example, Part 4 of the Act, focuses on the Strata Management before Management Corporation stage. Throughout this stage, the operating management body are either the Developer's Management Period, or the Joint Management Body (JMB). This includes provisions on the responsibility to collect maintenance charge, to open and maintain a maintenance account, to enforce by-laws and to manage and maintain the strata building and the common properties. The following sub-section further explains these responsibilities through (i) the application of share unit formula, (ii) determining maintenance fees, (iii) matters relating to opening and maintaining the maintenance account and (iv) aspects of managing high-rise strata developments.

2.3.2.1 Share Units Formula / Calculation

Share units has an exclusive role under the Strata Management Act 757 as it is used to determine the amount maintenance charges as well as the sinking fund, a representation of the voting power allocation for each strata owners and formulates the number of allowed for nomination for the committee member election (Choong, 2022; F. H. A. Wong, 2019). However, existing literature discusses on the unjustified numbers derived in the formulation of the Share Unit Formula for strata building. According to the Strata Management Act 757, subsection 25(3), the amount of the maintenance charges shall be determined in proportioned to the share units of each parcel, whilst the sinking fund contribution shall be of agreed percentage, but shall not be less than 10% based on the

maintenance charge. Initially, prior to the current revision of the Strata Management Act 757, the maintenance charges were determined based on the parcel size (Choong, 2022).

Post amendment and as a result of a court case in 2019 between *Ekuiti Setegap Sdn Bhd vs Plaza 393 Management Corporation*, the calculation was amended to be share unit basis. The share unit elements were first introduced in the Act 318 that requires maintenance charges to be collected according to the ‘allocated share units’ that is computed based on size, usage, and location of accessory parcel using the prescribed formula. Under the Strata Management Act 757, the allocated share unit shall be calculated according to the following formula:

$$\begin{array}{c}
 \boxed{\text{Allocated share unit}} = \boxed{\text{Total of (Area (m2) of parcel x F}_1 \text{ x F}_2)} + \boxed{\text{Total of (area (m2) of accessory parcel F}_3)} \\
 \text{F}_1 - \text{parcel type weightage factor} \qquad \text{F}_3 - \text{Weightage factor for accessory parcel} \\
 \text{F}_2 - \text{whole floor parcel weightage factor}
 \end{array}$$

Figure 2.7 Share Unit formula according to Strata Management Act 757
 Source: Strata Management Act 757, First Schedule

The Strata Management Act 757 has spelled out the weightage factor for each parcel types that were especially intended for mixed-use developments. The above-mentioned formula can be further made clear through a simulated calculation of a share unit, simulating the following assumptions, whilst applying the weightage factor according to the Strata Management Act 757, with thorough explanation.

The assumption parcel used in the following Table 2.5 calculation is referring to a parcel of an Apartment type with lifts but without air-conditioner, thus, according to the First Schedule of the Strata Management Act, the F1 weightage shall be 1.00. Whereas F2 represents the lettable circulation of whole parcel, with this basis, where lettable area is not applicable for this parcel type, F2 weightage is 1.0, in accordance to

Table 2 of the First Schedule (Appendix). The final weightage is F3, which is the accessory parcel that is equivalent to non-habitable area either inside or outside of the building. This simulation depicts that the parcel has both inside and outside accessory parcels, thus the weightage encompasses both 0.25 (outside) and 0.5 (inside) the building. The final share unit calculated according to this simulation and assumption is equivalent to 99.5, with nearest rounding up, sums up to 100 share units' allocation for the said parcel.

Table 2.5 Example of Share Unit Calculation

Description	Calculation (Assumption)	SMA 757 Remarks
Parcel No.	A10-6	(According to parcel schedule)
Accessory parcel	B123	(According to parcel schedule)
Parcel type	Apartment	First Schedule Table 1
Facilities	With lifts without air-conditioning	First Schedule Table 1
Area of parcel	92m ²	(According to parcel schedule)
Area of accessory parcel	10m ² (within building) 10m ² (outside building)	(According to parcel schedule)
Share unit (calculation breakdown)	Total of (Area (m ²) of parcel x F ₁ x F ₂)	
	= 92 m ² x 1.0 x 1.0 = 92	
	Total of (area (m ²) of accessory parcel F ₃)	
	= (10 m ² x 0.5) + (10 m ² x 0.25) = 7.5	
	= 92 + 7.5 = 99.5	
Share Unit Allocation	** First Schedule, Sect.2(f), share units shall be expressed in the nearest round number = 100 **	
*Calculation is for informational purposes only		

Upon concluding the share unit allocation with the approval of the COB, the management body are now able to determine the chargeable maintenance fee according to the approved allocated share units.

2.3.2.2 Determining Maintenance Charges

Contrary to the perspective of property experts regarding maintenance cost considerations, there exists a divergence in opinion regarding the calculation of

maintenance charges when considering the maintenance charge and share unit formula. Conflicts in deciding the maintenance charge would often create dispute when a lot of the management bodies used square foot as basis in deciding the maintenance charge. In a concluded referred case between *Ekuiti Setegap Sdn Bhd v. Plaza 393*, the payment of maintenance charges and the sinking fund contribution should be according to the share unit (ILKAP, 2020).

The share unit-based maintenance charge is considered a better option in response to the recent strata development that are more complex and for some strata developments, the units are not limited to residential but also commercial, with consideration of shared common property and limited common property (Lau, 2019a; Poh, 2019). The maintenance rates can be further classified into two classes, the main rate, is the cost to maintain the shared common property divided by the total share units of all category, while the second is the cost to maintain limited common property divided by the total share units of each category.

The following Table 2.6 shows a simulation of the share unit formula to determine maintenance charge and rates through a prefixed assumption, where the previous assumed calculation in Table 2.5 continues with a 100-share unit:

Table 2.6 Simulation of maintenance rates

Description	Calculation (Assumption)
Total no of share units – of the whole Apartment development	100,000
Share unit allocation	100
Total expenses on common property	RM1,000,000
Maintenance charge on common property	$100 / 100,000 \times \text{RM}1.0\text{mil}$ = RM1,000 per year
(Excluding the sinking fund)	
Total charge Common Property per month	= RM 83 per month
Rate per share unit (RM83 / 100)	= RM 0.83 per share unit

Ultimately due to the flexibility in estimating and fixing the total (expenses) maintenance budget and allocation, cases were reported against dissatisfaction of proprietors relating to the maintenance fee amount, one case in particular has changed the future course of this calculation. Here is where the voting power of the strata owners are crucial in agreeing to the rates for maintenance charge as proposed by the management body during the Annual General Meetings. The decision made during the meeting has greater relationship with the satisfaction and maintenance charges.

The amount of maintenance fee for the low-cost and medium cost would range between RM30 to RM200 per month (Gregory Ho & Hsuen, 2022; MIEA, 2020). The strata owners expects the maintenance services to be of higher quality with the amount they paid (Izanda et al., 2020). Often the strata owners are dissatisfied with maintenance outcome over the amount paid (Tawil et al., 2011). Aside from proposing the charges during the AGM, there are no further rules or guidelines in the maintenance cost estimation and determination (Tawil et al., 2011).

In addition to no actual guide in determining the maintenance charge, the provisions under Strata Management Act 757 does not make things easier by allowing the MC is allowed to fix different maintenance rates, but the same cannot be said for the JMB (Lai, 2019b). This provision is understandable considering the JMB do not have the inherent power, nor can the JMB assume such power under the Act even with undisputed resolution during the AGM (Lai, 2019a). However, it was reported in 2019, 90% of strata developments are under the JMB management, as result from delay in issuance of the strata titles, consequently delaying the constitution of the MC. The JMB is the precedent management that will eventually succeed the MC, in other words, both the JMB and MC are responsible to maintain and manage the same strata scheme size, same common property and same managerial works, but gains different maintenance charge contribution (S. Ng, 2019; REHDA, 2019). Hence the Strata Management Act 757 provision that allows different maintenance rates only for the MC, is unjust to the JMB, as collectively justified by many real estate's professionals.

However, despite the broad powers given to the strata management bodies under the strata law, it has yet to manifest good governance towards the strata communities

(J. Z. Wong, 2019). The growth of strata developments has become a challenge in manifesting good governance, issues like fraud and mismanagement of common property dealings, poor maintenance, poor financial management, as well as the lack of systematic enforceable standards and flaws in the legislation itself. These issues are evident as there has been brought to court appeal.

In the case of *Perbadanan Pengurusan Palm Springs @ Damansara v Ideal Advantage Sdn Bhd & Anor (No 2) [2017] MLRHU 1686*, the unit owner of the strata scheme argues that the parking lots should be considered part of their parcels and not a separate accessory parcel than can be commercialised. 394 car parks (out of the total 439) were rented out separately and not used in connection with the main property. This practice is a violation against the Strata Titles Act Section 4, interpretation of accessory parcel, Section 34(2) and 69, stating that accessory parcel shall not treated independently or transferred without the main parcel. Violation of these provision is a clear indication of poor understanding by the management body. While it is the responsibility of the management body to manage and maintain the common property, determining the common property continues to become a challenge for some management body, this is especially evident in reference to *Management Corporation Strata Title Plan No 367 v Lee Siew Yuen and another* and *Sit Kwong Lam v MCST Plan No 2645[2018] SGCA 14*.

The strata management act has been criticised for its unenforceability. The strata management act was intended to allow for freedom to manage, oversee the overall liveability and well-being of a strata development, however, this approach was mostly based on presumption that (J. Z. Wong, 2019):

- i. the MC or property managers are both experienced and professionally skilled to manage a strata development, skilled with legal requirements and beyond;
- ii. the unit / strata owners, the prospective MC are financially capable to hire professional property managers.

Should any of these assumption fails, the expectation to uphold the legal obligations of strata management falls on the strata owners. These assumptions are even more inaccurate and undependable because there is no short of building managers with lack

of professionalism, many cases where low cost and low-medium cost residents are financially incapable to hire professional managers and the lack of strata management proficiency amongst the strata owners to promote best conduct of their rights to upkeep the strata scheme.

2.3.2.3 Maintenance Accounts

There are two types of accounts that the management bodies need to manage, first the maintenance account, and second the sinking fund account. The funds in the maintenance account are used on the day to day maintenance work, services providers charges and management staffs' salary (ILKAP, 2020). While the sinking fund account are collection for future major refurbishment or replacement work that are just as important (Ashraf Wahab, 2020).

Both accounts are significant as proof of transparent procurement and business dealing by the management corporation / bodies, in which the produced financial statement or the financial report is an official recording of the management bodies' financial activities. This record gives an overview on both the short-term and long-term expenses in managing a strata scheme. The current agreed standard it to apply the Malaysian Private Entities Reporting Standard (MPERS) as the basis for the strata management bodies in preparing the financial reports, the same standard that has been used by small and medium enterprises since 2016. According to the MPERS, each report will consist of the organisation's background, the committee report, auditor's report, income statement, cash flow statement and many more. There are more contents required according to the MPERS, but this study will purposely focus on the above mentioned as it is a reflection of the direct and indirect cost managed by the strata management body throughout their operation.

Other than the physical maintenance of the strata building, managing the maintenance and sinking fund account is equally crucial under the Strata Management Act 757. Producing the financial report is one of many accounts related responsibilities

of the strata management bodies. The Strata Management Act 757 clearly states the financial responsibilities under the Act accordingly:

Table 2.7 Management’s responsibilities relating to Account

Responsibilities	Strata Management Act 757, Section No.		
	Developer	JMB	MC
To prepare financial statement	Sect.14(1)(a)	Sect.26(1)(a)	Sect.62(1)(a)
To appoint Auditor	Sect.14(1)(b)	Sect.26(1)(b)	Sect.62(1)(b)
To file audited account to COB	Sect.14(1)(c)	Sect.26(1) (c)	Sect.62(1) (c)
To comply to the powers of the COB (relating to Account)	Sect.14(2), 14(3), 14(4)	Sect.26(2), 26(3), 26(4)	Sect.62(2), 62(3), 62(4)
Offences / Compound	Sect.14(5)	Sect.26(5)	Sect.62(5)

Source: Strata Management Act 757

The registered and established management bodies need to possess a stable and well audited finance statement that becomes a form of warranty that the elected management bodies are able to conduct works related to management and maintenance of the strata scheme are not obstructed by financial issues. Financial state includes the track record of every procurement process conducted by the JMB or MC throughout their operation, the collection of the management fees as well as the management of the sinking funds. To ensure that the financial state of the management bodies is secured and well managed, the COB plays a huge role in conducting periodical assessment of audited management accounts. With this periodic assessment, in which may be of surprise assessments, management bodies are expected to maintain and manage their bills and fund records organised throughout operation without fail.

While managing the direct and the indirect costs of the building management and maintenance, the account executives that are smaller in number compared to the hundreds or thousands of units within a strata scheme, also faces with challenges in matters relating to account receivables or known as strata residents and / or owners that

have yet to pay their maintenance fees despite receiving the maintenance and management services as agreed (Liew, 2018).

Refusal or delay in payment of management fees by parcel owners leads to a chained reaction that will continue to grow overtime and causes rectification works to suffer due to lack of funds (Liew, 2018). The most common issue faced by the MC is poor collection of maintenance fee and sinking fund (Mohd Tawil et al., 2012). The actual cost to maintenance ration is a significant matter of discussion as it ensures the efficiency of the strata's management and maintenance works. The managing and maintenance cost of any strata schemes may differ from one another, depending on the size of the facilities as well as the types of services provided. The fee amount that has to be paid on monthly basis has taken into consideration the above matter as well as other costs and fess necessary to ensure proper maintenance of the strata scheme (Altmann, 2016; Christudason, 2004; Mazliza et al., 2015). It would be misguided to claim that the maintenance fee is solely based on the cost needed for physical maintenance works, as it would be counterproductive to focus on a short-term cost consideration. Hence it is important for parcel owners to understand that the amount payable to the management body are inclusive of the sinking fund, in which it has significant role in future operations, taken into consideration circumstances that should not be overlooked (Hui & Tsang, 2004).

The strata management act has also included provisions to allows for collection of due payment through retention of moveable items. Section 35 stated that the commissioner may act upon written application by the developer of the joint management committee to issue warrant of attachment of any movable property of defaulting parcel owners. The attachment shall be made with the presence of the commissioner or an appointed officer from the Commisioner's office. In pursuant to this provision, the strata owners, the management bodies, the developers as well as the Commissioner shall act in accordance to the standard procedures and precedent actions as stipulated by the strata management act, which was also mentioned under Section 79 of the act.

However, the strata management act has also included that despite the attachment warrant, the defaulter is still allowed to pay the sums due during the seizing period. When all sums are recovered, the attachment will be returned and all auctions will cease from proceeding. This procedure has resulted a positive light according to a media report that took place under the watch of Majlis Perbandaran Kajang, where the maintenance charge collection of the particular strata scheme spiked from 45% to 78% payments. Despite the positive outcome based on the said report, discussion revolving limitations to the seizing procedure and auctions procedure (National House Buyers Association, 2019), especially considering how the strata management act provides no satisfactory interpretation of seize able property. According Abu Bakar (2023), the seizing procedure may be done without prior notice to the defaulter, but must be conducted during daytime. It was also highlighted that not all moveable properties may be seized. Seize able property should be those with value where the due sums may be recovered through auctions but with limitation and subjectively rely upon attending officers' judgment. For reference, the following Figure 2.8 shows an overview to the attachment procedure (without objection).

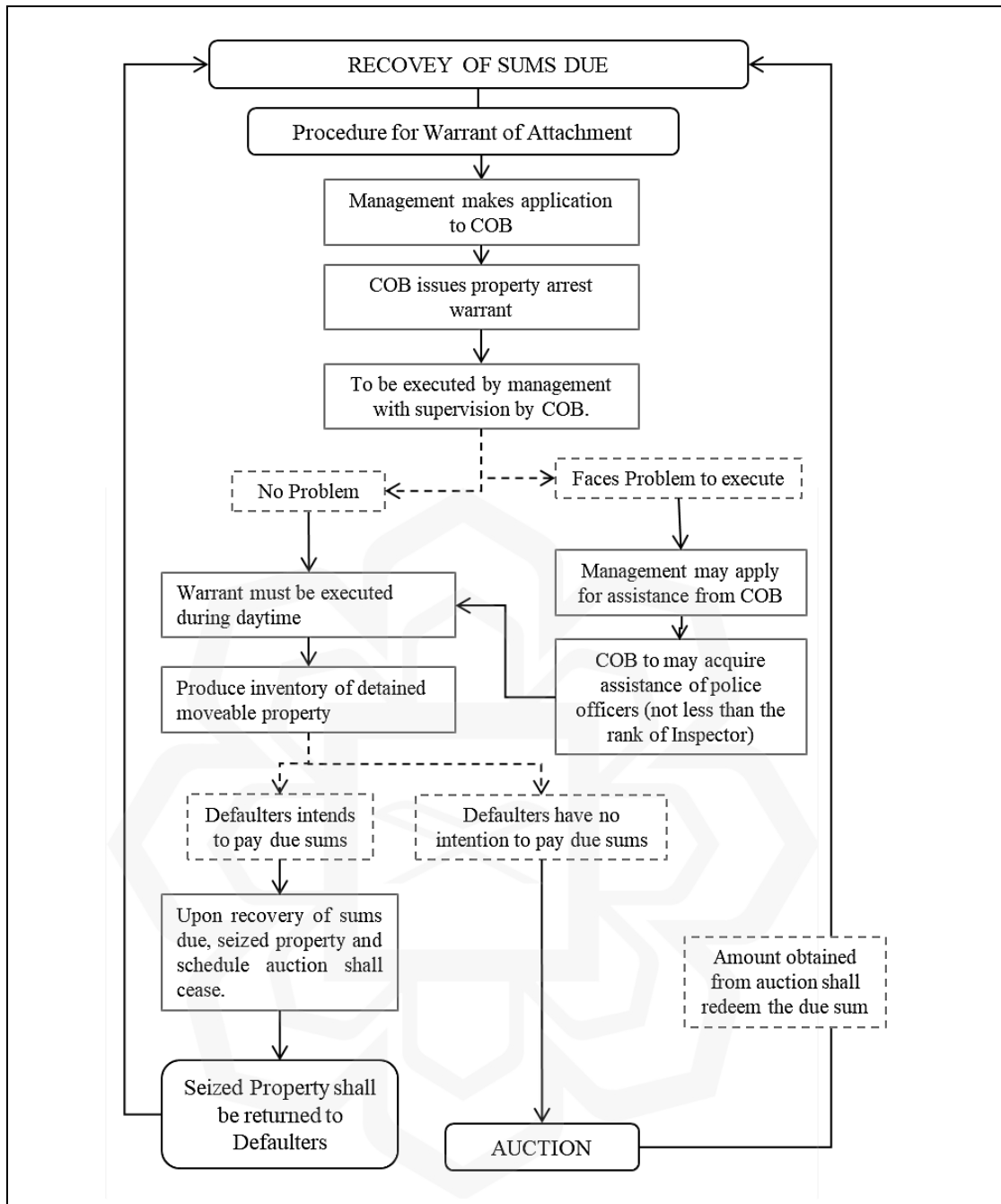


Figure 2.8 Process of attachment of any movable property (Section 35, Strata Management Act)

Sinking fund is a collected fund that is intended to be used for a specific and limited list of purposes. The amount that are usually 10% (Choong, 2022; Strata Management Act 2013 (Act 757), 2013) of the maintenance charges and or higher as determined by the management body during the general meeting would usually cover

works the likes of acquiring movable property for the common property, painting and repainting, renewal and/or replacement of any fixture or fittings within the common property.

The Strata Management Act 757 clearly states, it is the responsibility of strata owners and proprietors to pay maintenance charges, and contribution to the sinking fund according to the allocated share unit, in respect of the parcel owned to the developer for the maintenance and management of the buildings or lands intended for subdivision into parcels and the common property in a development area. Researches agrees that there are significant number of strata owners that are reluctant to pay maintenance fee and to contribute to the sinking fund. Delay in payment or non-payment causing funds deficiency for the maintenance work to proceed efficiently (ILKAP, 2020; Nor Amira et al., 2018). If the case may be, Strata Management Tribunal is one of the many option that the management can resort to in order to claim the sum due from the strata owners (ILKAP, 2020)

On the other hand, in the case when the contributions made to the maintenance account that are not spent, all balances inclusive of the sinking fund, after payment of all the expenditure, with records to the account, shall be transferred to the next appointed management body. This procedure is part of the handing over or the transition process between one management body to the other, it can either be between the developer's management period to the joint management body (JMB) or between the JMB to the management corporation (MC).

2.3.2.4 Managing High-rise strata development

The establishment of the Act 757 in 2013 is a considerable effort made by the Government to provide a clear platform in terms of maintaining and managing stratified properties in Malaysia.

The strata management clearly stipulated specific duties and powers for the JMB/MC in terms of managing and maintaining the sub-divided stratified buildings,

without mentioning whether that high-rise properties were residential or commercial (Khalid et al., 2018). An Officer of COB of Kubang Pasu Municipal District also stressed that maintaining and managing commercial high-rise buildings is totally different, compared with residential buildings.

Table 2.8 Differences between managing commercial v. residential

Theme	Commercial	Residential
Tenancy	Managing the tenancy, selecting the right anchor tenant & preparing a fair tenancy agreement	NA
Marketing	Marketing strategies	NA
Investment sustainability	To sustain parcel owners' businesses	NA
Building maintenance	Building conservation & maintenance	Building conservation & maintenance

Source: (Khalid et al., 2018).

There is clear difference in managing commercial strata and residential strata, specifically in regards to tenancies. Managing a commercial stratum includes the property managers' ability to effectively market available rental spaces, this itself challenges the managements' strategizing skills to attract potential tenants to run their business. While a more similar problem between managing commercial and residential strata according to Liew (2018) includes (i) insufficient funds and a long list of defaulters, (ii) the lack of skilled and experienced staff, and (iii) poor account management. Managing strata properties involves a long list of stakeholders, from committee members, building managers, administrative staffs, account executives contractors, to parcel owner and / or tenants, unless it is a low-density strata property (Liew, 2018). The following table summarizes the parties and personnel that are generally involved in a building management:

Table 2.9 Building management personnels and their roles

Group	Personnel	Roles
Management Committee	Committee members of Joint Management Body (JMB) or Management Corporation (MC). Max no. of 14 members, inclusive of Chairman, Vice Chairman, Secretary Treasurer, and other committee members	<ol style="list-style-type: none"> 1. To act as “board of directors” 2. To ensure policies and management are in place 3. To review financial status of JMB / MC 4. Members should have some experience in management, and commendable knowledge on strata management laws.
Management staff	Significant number of building manager or supervisor, fitting the number of units in the property.	Building Manager / Supervisor to oversee the daily operation such as Security, Health & Safety, Cleaning services, Renovations, Repair works, attending to complaints, preparing reports and email corresponding.
	Administrative staffs	<ol style="list-style-type: none"> 1. To prepare purchase orders, invoice, quotations and etc. 2. To update strata rolls 3. To issue reminders and notices
	Maintenance technician(s)	<ol style="list-style-type: none"> 1. To perform general repairs 2. To be on stand-in to urgent electrical and mechanical system breakdowns
	Account Executives	<ol style="list-style-type: none"> 1. To prepare payments 2. To close accounts 3. To prepare financial reports 4. To close annual accounts and submit for audit
Supporting roles	Operations Manager / Building Officer	<ol style="list-style-type: none"> 1. To provide guidance to on-site staff 2. To liaise with relevant authorities 3. To organize and facilitate general meetings
	Registered Property Manager	<ol style="list-style-type: none"> 1. To provide professional advice and consultation on both legal and technical matters 2. To establishes SOP and ensures its compliance by staffs
Service providers	Security guards Cleaning service Lift maintenance Electrical maintenance Fire control system maintenance	To fulfil their services as agreed

Source: (Liew, 2018)

The role to maintain the building condition spelled out for the management bodies under the Strata Management Act shall include maintenance of building structure, surface and exterior, building interior, mechanical and electrical supply system as well as maintenance of roads and its landscapes (Liew, 2018). These maintenance jobs include activities the like of regular inspections, meter readings, preventive maintenance, periodic repairs, urgent repairs and upgrading.

Managing high-rise buildings is already complicated as is, the situation became more complicated and challenging during the Corona virus pandemic outbreak in 2019 (Covid-19). The outbreak had significant impact towards the social, economic as well as the environmental aspects of strata management. The government's SOP on the operating hour limitation has also limits the contractor's maintenance work schedule, in which some supplies and urgent repairs faced delays as not all contractors and suppliers are considered as essential sectors (Azian et al., 2022).

From the economic aspect, the management offices struggle to continue and maintain the maintenance fee rate collection due to residents' requests for discounts exemptions especially due to lockdowns and lay-offs instigated by Covid-19. Collection method has turn into a challenge of its own, when a significant community of older residents faced challenges with online transactions. There is also the issue of increase expenses on the management offices to conduct disinfection activities and protective equipment the likes of masks, face shields, sanitizers for the staffs (Azian et al., 2022). Social conducts were also a challenge throughout the outbreak, it was difficult for the management offices to conduct the Annual General Meetings (AGM) as well as difficulties in daily interactions. The ever-changing SOP issues by the government greatly affected the management and residents' behaviour.

2.3.3 Stakeholder in strata management

The strata management act approach can be simplified by understanding the stakeholders involved and their roles and responsibilities under the act. The stakeholders included under the (Strata Management Act 2013 (Act 757), 2013) are:

- i. Commissioner of Buildings (COB)
- ii. Developers
- iii. Proprietor
- iv. Joint management body (JMB)
- v. Management corporation (MC) and sub-MC
- vi. Managing Agents
- vii. Unit owners / Purchaser
- viii. Parties granted special permission by the Tribunal

2.3.3.1 Commissioner of Buildings (COB)

The COB under the strata management may perform the duties and powers as conferred upon. There are six main functions of the COB:

- i. To update building inventory conducts of strata buildings within the relevant local area.
- ii. To ensure the establishment of JMB for strata development
- iii. To resolve any dispute between the developer and the purchaser in relation to the JMB establishment and matters of maintenance account.
- iv. To monitor developers' actions in addressing defects
- v. To uphold the stipulated law of Strata Management Act and related regulation
- vi. To offer periodic training in administrative management, account management and other related JMB/MC management topics.

The responsibilities conferred to the COB puts them in a position answerable to the strata management tribunal, fitting their role as empowered legal authority in overseeing the implementation of the strata management act in all-inclusive (PropertyGuru Editorial, 2021).

Despite the powers provided under the Strata Management Act, Ng Sze Han, State Local Government, Public Transport and New Village Development Committee chairman said at a press conference that the COB should play more proactive roles in solving management and maintenance issues (Roznah, 2022a). As the number of strata

schemes continue to rapidly increase, this triggers the COB to conduct major upgrade on their monitoring system, procedures to ensure efficiency. The current management system was first introduced particularly with intention to improve the COB's monitoring approach as majority of the documentation, dealings and activities are being updated by the management bodies themselves through the online system, e-COB.

The main function of the system is to act as a centralized data platform that gathers data related to strata developments, data that are crucial to ease the COB and other departments that are interested in the data. The Selangor Intelligent Strata Property System (SISP) is a e-COB system and is currently being utilised by the 11 local councils in Selangor (Jade Chan, 2021). The pandemic has triggered the push for the full utilisation of digital monitoring, this system was previously launched by the Lembaga Perumahan dan Hartanah Selangor (LPHS) in October 2021.

The system allows the COB, the JMB and MC access to information relating to the strata scheme, buyer list, the management details, as well as a monitoring platform inclusive of a medium for the scoring index value (star rating). Primarily, the system is to ensure better information management especially on monthly collection of the maintenance charges and manages expenditure from collection (Zubaidi, n.d.). However, the data input and update conducts of this system heavily relies on the management bodies commitment. Failure to update related information, documents and other related matters is considered a failure to the system, and the COB will obviously have the shorter end of the stick. Thus, regular on-site inspections, audits and monitoring continues to be significant in fulfilling the COB's roles.

At the same time, the COB continues to provide trainings to the management bodies. Efficient and effective strata management is a collective factors of good office administration, effective communication, financial management, inventory management, service charge collection, as well as social living to ensure prolonged building lifespan and overall well-being of the strata communities (Mohamad Sukeri Khalid et al., 2017). Therefore, it is fitting for the COB to conduct periodic trainings to the JMB/MC to achieve best standard of strata management. Such effort is especially

necessary as a response to overcome the risks of incompetent or lack of professional property managers and management bodies (J. Z. Wong, 2019).

A study was done on the roles played by the COB in providing trainings to related parties have concluded the following courses, Courses / training on office administration (OA), Courses / training on effective communication (EC), Course / training on financial management (FM), Courses / training on inventory management (IM), Courses / training on collection of overdue service charges (OSC), Comprehensive course/training on the aspects of maintenance and management of buildings (MMB), and Courses/training related to stratified society living (SSL) should be included within the list of courses (Mohamad Sukeri Khalid et al., 2017). Several studies have concluded that the COB should play a more significant role and should embark on a more vigorous enforcements to improve operating JMB, MC and other parties involved in the management and maintenance of strata properties (Mohamad Sukeri Khalid et al., 2017; National House Buyers Association, 2019).

2.3.3.2 Developers

The demand and supply trends of the high-rise strata development is not limited to the developer's contribution in initiating new developments, the Developers shall continue to have an obligation to fulfil under existing Strata Title Acts 1985 (Act 318) and the Strata Management Act 2013 (Act 757). The developer's roles under both acts are intertwined where failure in one will have significant consequential impact on the other.

As an example, the strata title issuance process is a significant stage of strata development that heavily depends on the developer's ability to plan and execute. The processes involving timely application and organized documentation influences the application of SiFUS and CPSP (Certificate of Proposed Strata Plan) stage prior to the issuance of the strata title (see Figure 2.17 and Figure 2.18). However, despite the existing Acts and regulations, issues involving the strata developers persists. While having a standard formula to calculate the share units is ideal, in reality, developers are faced with a more complex strata developments, the likes of mixed-used developments.

Aside from the strata title, the share units and the schedule of parcels (SOP) are two other significant documents that is mandatory for the developer to produce and display during the sale. The strata management act 2013 also stipulated that the developers are not allow to conduct sales unless these two document have been submitted and approved by the COB (Rubiah et al., 2018). The display of schedule of parcels become a form of assurance that the developer can no longer change the share unit aggregates unless with approval of the purchasers (National House Buyers Association, 2019). The share unit on the other hand is equally important for the developer to produce at this will be the basis in determining the maintenance fee.

The developer's role continues to be significant even after the completed construction and the delivery of vacant possession (VP), a period known as the Developer's Management Period.

Developer's Management Period

The Developer's management period takes place from the delivery of the first Vacant Possession (VP) of the strata unit for the whole next one (1) month up until the first AGM of the JMB.

During the one-month Developers' Management (DM) period, developers are set to leave an exemplary management quality. Exemplary action plan taken initiates three (3) months prior to the delivery of the first VP. In brief, during the DM period, reviewing annual expenses estimates, opening of bank account for sinking fund and the maintenance account, as well as establishing the administrative office, are the first few responsibilities of the DM period, an ideal strata management procedure prior to the first VP. There are six crucial aspects that the developer needs to look into, which are law compliance, staffs' competencies, financial capacity and foresee and safeguard the interest of parcel owners (Ahmad Shazrin & Mursyidah, 2023). These responsibilities are similar for all management bodies, even for the JMB and the MC, regardless, same problems persist, that is the poor collection of maintenance charges.

To prepare for Deposits to rectify common property defects also falls under the responsibilities of the developer throughout the defects liability period (DLP) that lasts for 24 months. During the coincide period of the developer's management period and the defect liability period, it is momentous that the developer to start collecting the maintenance charges as well as the sinking fund. This noteworthy action plan was emphasized by the Real Estate and Housing Developer Association (REHDA), to ensure that the developer has the financial capacity to make good and maintain the strata building (ILKAP, 2020).

Forward to the delivery of VP without the issuance of strata title, the developer continues to play significant role throughout the developer's management period to manage, maintain and to make good defects until the establishment of the JMB.

The developer's role will only come to cease its role upon achieving the minimum 25% complete transfer of the strata titles to the strata owners, consequently the establishment MC and the convene of its first annual general meeting. The transfer of the strata titles however poses another challenge coming from the purchaser. Rubiah et al. (2018) also concluded that the late issuance or complete transfer of strata title in some cases are partially fault of the purchaser that delays the transference of the strata titles. Other common issues are closely related to the responsibilities of the developers includes the establishment and implementation of Share Units formula for strata residentials which has significant relation and impact towards the issuance of strata titles, as well as other responsibilities during the developer's management period, improper documentation and poor management (Rubiah et al., 2018).

2.3.3.3 Strata Management Bodies

The management bodies that may be in the form of a Joint Management body (JMB) or the Management Corporation (MC) according to different stages of strata management stage. The major difference between these two management bodies is time of which the management body is established, in which the JMB is established within 12 months from the VP delivery, upon the convening of the first annual general meeting. In

comparison, the MC is established within a month of achieving the minimum 25% of the share aggregates transference of the strata title. The second significant difference is the involvement of the developer as one of the management committee members, wherein 1 seat is reserved for the developer amongst the JMB committee, while there are zero involvement of the developer as a MC committee (REHDA Institute, 2018).

The JMB is obliged to inform and register with the COB after the first annual general meeting, where the COB will be monitoring the establishment of JMB. Subsequently, the COB continues to monitor when the MC is first established after the end of the JMB management period, which is upon reaching the 25% transferred aggregate share units. Through this monitoring, the COB is able to keep track on the changes and transfer of management of relevant strata development. This is evident through the COB’s annual reports where the COB is able to show the transition pattern of management bodies through the years (see Figure 2.9).

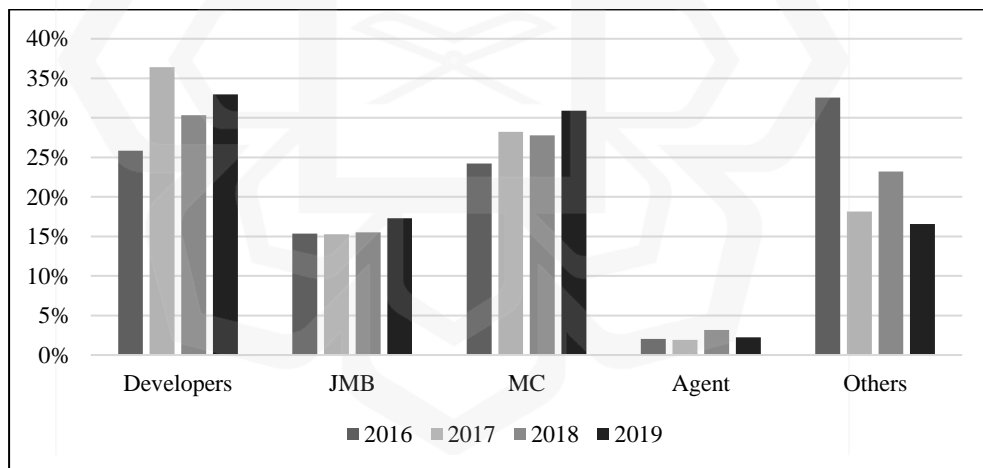


Figure 2.9 Records on type of management bodies throughout 2016-2019

Source: (KPKT, 2016, 2017, 2018, 2019)

The coarse trend shown in Figure 2.9 of recorded JMB and MC can be considered as positive movement as the numbers of JMB and MC registered showed an upward trend, somewhat complements the increase in strata developments over the

years. This rough observation however cannot be deemed as representation of every state and local authority in detail, observing the growth of strata development in Kuala Lumpur as an example, a recent report highlighted that out of 5,500 strata developments in Kuala Lumpur, 50% of which are currently without a strata management. This vacant management are mostly by products of management committees' resignation (Farid, 2023)

In addition, even though records are showing progressive transition between management bodies, handing over issues prevails, amongst management bodies due to the lack of professional experience and conducts (Ashraf Wahab, 2020; Liew, 2018). The transfer of knowledge, records and accounts is a shared responsibility between the JMB and MC as these documents has great influence in ensuring their ability to fulfil their roles (see Table 2.10) towards quality management and maintenance.

Table 2.10 Summary of Responsibilities of Management Bodies according to Strata Management Act 757

Responsibilities	Developer Management	JMB	MC
1. To register with COB (JMB only)	X	✓	X
2. To maintain and manage (in good state) the building or land intended for subdivision into parcel or common property	✓	✓	✓
3. To determine amount for maintenance and management fee and sinking fund contribution.	✓	✓	✓
4. To act according to notice by local authority or any authority	✓	✓	✓
5. To prepare and maintain strata roll with required details	✓	✓	✓
6. To maintain and conduct account auditing	✓	✓	✓
7. To collect fee and contribution from strata owners	✓	✓	✓
8. Contribute to sinking fund for unsold units	✓	X	X
9. To authorize maintenance and management expenditure	✓	✓	✓
10. To recover any sums due from strata owners	✓	✓	✓
11. To procure items for the enjoyment of common property	✓	✓	✓
12. To employ services to undertake maintenance and management	✓	✓	✓
13. To perform all necessary duties under the Act	✓	✓	✓

Responsibilities	Developer Management	JMB	MC
14. To determine the interest amount payable for late charges	✓	✓	✓
15. To determine charges and sinking fund contribution for provisional blocks (MC only)	X	X	✓
16. To make and / or enforce By-laws	✓	✓	✓

Source: (Strata Management Act 2013 (Act 757), 2013; REHDA Institute, 2018)

In reference to Table 2.10, the expectation that the strata management act puts upon the management bodies is an obvious form of risk taken. This is in consideration that the act was designed based on high-regards that the management bodies have the professional capacity to conduct building, financial and resources management at a commendable quality (J. Z. Wong, 2019), however, many studies conducted will discredit these assumptions with evidences of issues raised in strata management and maintenance, involving issues from various aspects, like the poor physical condition of strata buildings, poor financial plannings, non-strategic management and the lack of staff competencies (Abdul-Rahman et al., 2014; Ahmad Ezanee et al., 2015; Azian et al., 2020; Farhan et al., 2019; Ihsan & Alshibani, 2018; ILKAP, 2020; Mahyuddin et al., 2018; Miller & Muhammad Shafiq, 2022; Oyetunji & Oluleye, 2021; Wahi et al., 2018; Wan Sumayyah Syahidah et al., 2018) (also see Table 3.4, page 110).

Joint Management Body (JMB)

Upon the expiry of 12 months under the DM period, in the assumption that the strata titles are not issued within 12 months from the delivery of the first VP, the JMB has to be established and shall convene the its first general meeting. From this point forth. The JMB is responsible to manage and maintain strata building and the common properties until the formation of the MC and its first AGM.

In reflection to the Strata Management Act 757, the Commissioner of Buildings (COB). Shall be informed of the JMBS's establishment. Hence, the COB should also be invited to attend the JMB's first AGM. This is to ensure that the proceedings of the AGM are in accordance to the Strata Management Act 757 and conveniently develops

future liaison between the JMB and the COB. COB's presence in the first AGM will also benefit the JMB in way which the COB may also provide additional support in answering questions or issues raised during the AGM.

The strata unit owners are entitled to vote during the AGM, if they have settled all related fees, contribution to sinking fund and other monies due and payable to the developer in respect to their parcels (REHDA Institute, 2018). The general meeting of owners of premises in an apartment building as a decision-making mechanism is not always the most effective tool for managing co-owners of common property. In this regard, it is necessary to further improve decision-making procedures of the general meeting, reduce the quorum of the general meeting and the number of votes necessary for making decisions, regulate the procedures for the representation of common property co-owners. Creating a favourable legislative procedure for attracting citizens to participate in resolving issues of common property management, increasing the activity of owners is one of the ways to influence the choice of service and resource supplying organizations that provide utilities and carry out maintenance work on common property (Filatova et al., 2019).

Management Corporation (MC)

As soon as the allocated share unit aggregate has reached 25% through the transfer of strata titles, the developer shall fulfil its last responsibility that is to convene the MC's first AGM. The convening of the AGM shall be within 30 days from after reaching the 25% aggregate. Consequent to the establishment of the MC, the JMB will be dissolved within three months. Henceforth, all responsibilities shall be laid upon the management committee members that are the strata unit owners. Similar to the establishment of previous management, the MC, will immediately open and maintain the Maintenance and the sinking fund account, amongst other duties under the Strata Management Act 757.

According to the COB's annual report, there has been significant improvements on the number of established management bodies. This gradual achievement allows for a small sigh of relief. Table 2.11 shows the positive trend for successful strata schemes in

establishing their JMB and MCs. More JMB and MCs are formed, replacing the number developer's management.

Table 2.11 Successful establishment of management bodies

Type of Management Bodies	2020	2019	2018	2017	2016
Developers	36%	33%	30%	36%	26%
JMB	16%	17%	16%	15%	15%
MC	32%	31%	28%	28%	24%
Agent	4%	2%	3%	2%	2%
Others	12%	17%	23%	18%	33%
Total Strata Scheme (Malaysia)	22,241	22,345	21,337	20,917	19,841

Source: KPKT (2017, 2018, 2019), Commissioner of Buildings (2020) & Author's Calculation (2021)

Based on the discussed functions and roles of the developer, JMB and the MC, Figure 2.10 provides an illustrated overview of the specified parties according to the stages of strata management, post-delivery of VP without the strata title.

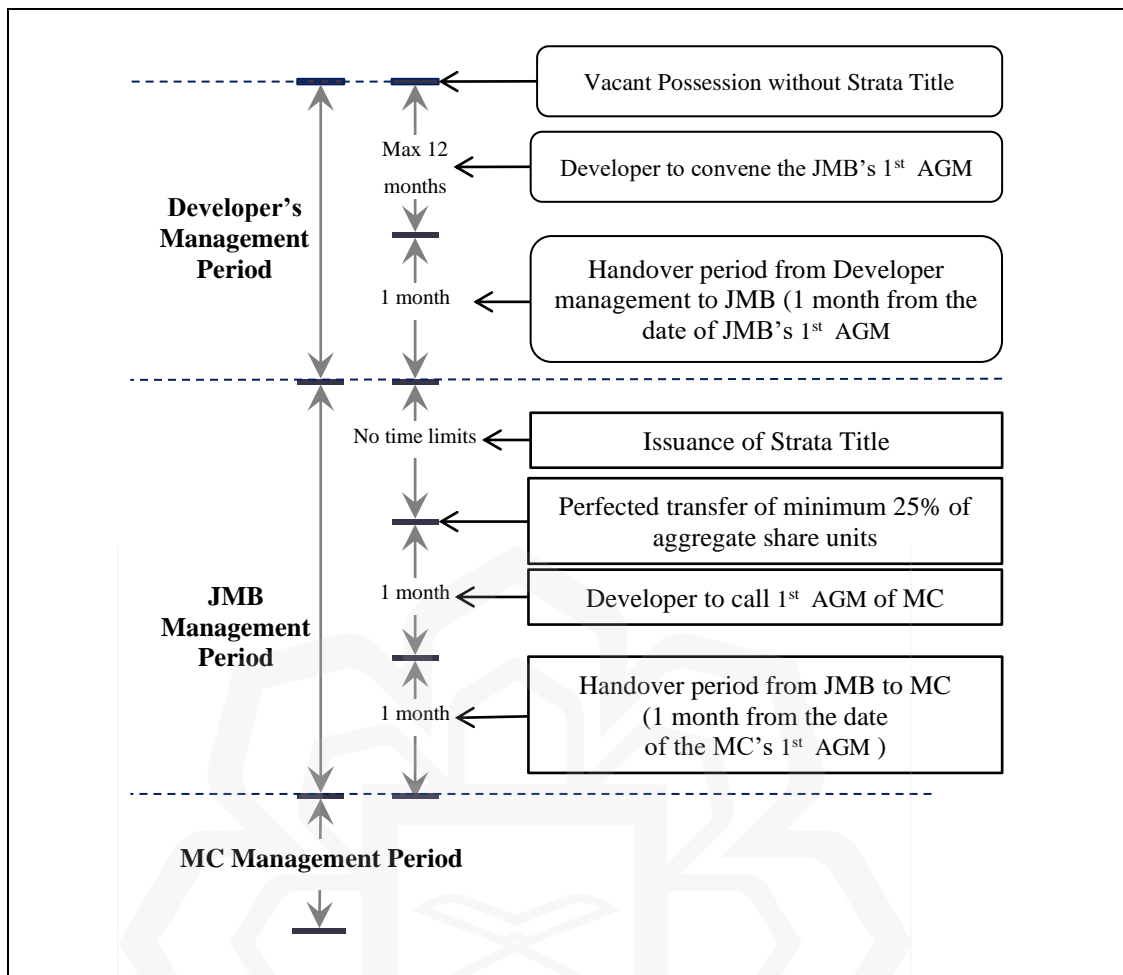


Figure 2.10 Stages of strata management where Vacant Possession without Strata Title

Source: (REHDA Institute, 2018)

2.3.3.4 Parcel Owners

The purchaser and the strata owner are two terms that that represents the same individual, but is separated by the possession of the relevant strata title. In reference to defined terms in the previous chapter (see Section 1.8, page 11), purchaser is the person or body that has acquired interest in the parcel, which also refers to the person who is registered as a parcel owner or the strata owner, which has been separately issued privileged access to the relevant parcel, including access to the common properties.

The acquired access comes with responsibilities, including in contributing paying the maintenance fee as well as the contribution to the sinking fund (Ashraf

Wahab, 2020), fulfilment of the said contribution is a reflection of the owners' understanding of their responsibilities and under the strata management act. However, poor maintenance fee collection is considered a critical issue considering its impact towards the management body's finances, making it difficult to carry out necessary maintenance works (Ummu Sholehah et al., 2020). Evidence are found through the COB's annual reports as well various studies, highlighting poor maintenance fee and sinking funds contribution amongst the parcel owners despite the privilege granted (Abas et al., 2021; Tiun, 2006).

There are several financial requirements that comes with acquiring access to common properties and strata living, that is not limited to the unit purchase price alone. Purchaser should be informed of the strata management mechanism, stretching from before the purchase, upon delivery of VP and so forth, beyond the completed transfer of strata title, for as long as the parcel owner continues to have access to the relevant parcel unless otherwise stated. Figure 2.11 shows simplified aspects for prospective purchasers' considerations prior to purchasing a strata property, especially amongst the first home buyers. Spreading awareness on the future costs and fees incurred, responsibilities as parcel owners allows a sense of readiness amongst the purchasers.

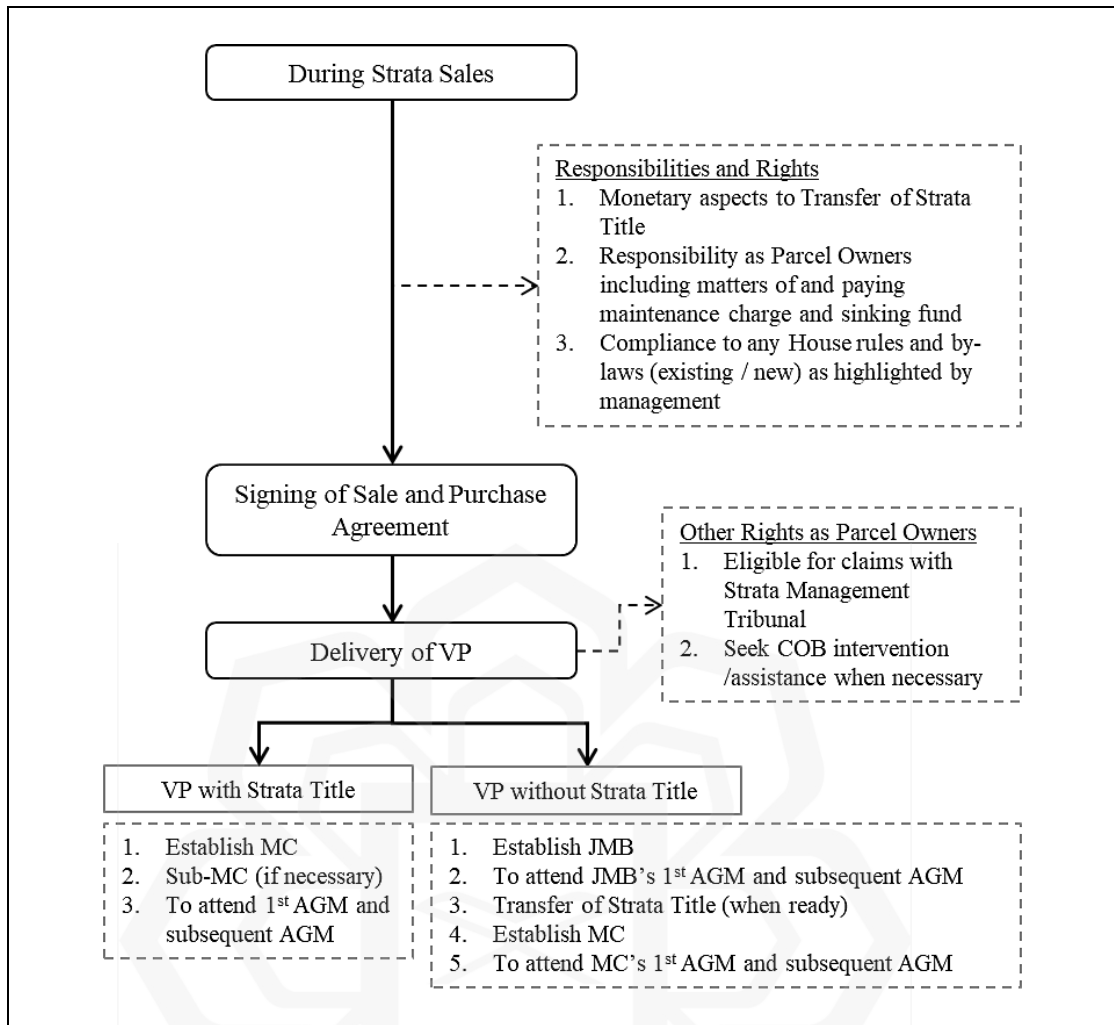


Figure 2.11 Simplified roles and commitments as strata unit purchasers and owners

The above figure likewise highlights the possibility of two occurrence, that is delivery of VP with strata title and without strata title that is significant for parcel owners to be aware of and take heed of. The figure also show other financial commitments that are imposed towards parcel owners so as to avoid further issues relating to late payments o refusal to pay due to lack of awareness which have and proven to have consequential affect towards quality and timely maintenance (Miller & Muhammad Shafiq, 2022; Ummu Sholehah et al., 2020) and risks for other disputes in strata management (K. G. Chong et al., 2021).

Overall, the insights and evidence provided in this section regarding stakeholders of strata management act shows that every actions, decision and / or failure

or refusal to comply by any party there in has significant impact towards overall well-being of a strata living as a whole (E. Liu et al., 2019; Ummu Sholehah et al., 2020). To simplify the elaborately discussed stakeholders and relevant scenarios and circumstances, the following Figure 2.12 sums up related stakeholders under the strata management act.

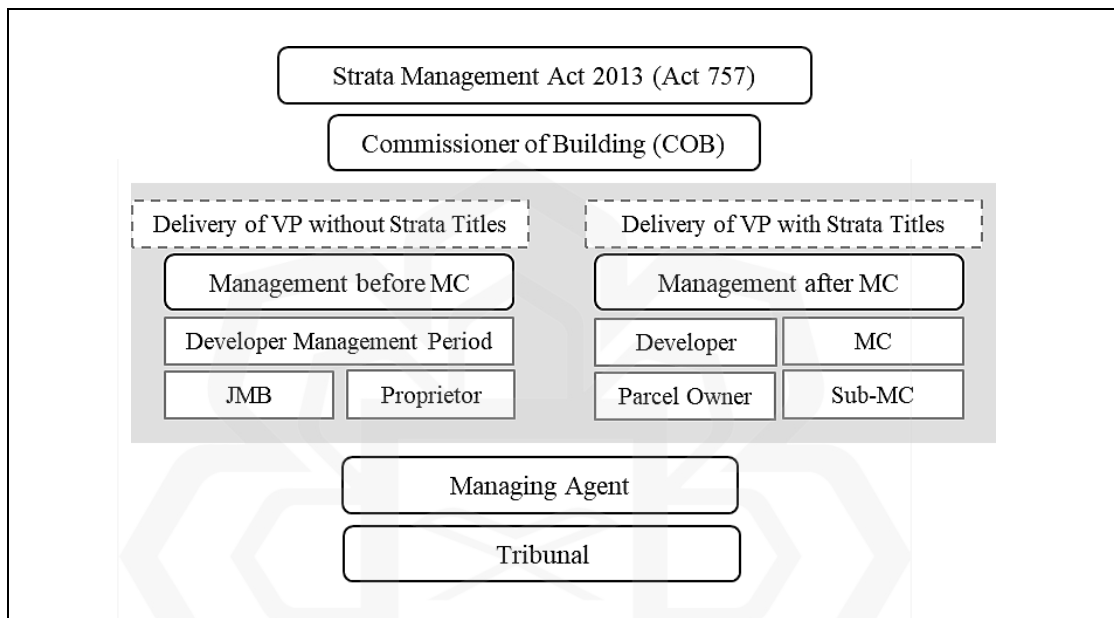


Figure 2.12 Stakeholders in managing strata developments under the Act.

2.3.4 Strata Management Tribunal

The strata management tribunal (SMT) was established under the Strata Management Act that was approved and gazetted in February 2013, with the Act to come into force in 2015, the tribunal began its operation one month later, in July 2015, which is regulated by the Strata Management Regulations 2015 under the Act. The Strata Management Tribunal is currently operating in four zones to ease the processes, the headquarters operating in Putrajaya with three supporting offices in East Zone (Kuala Terengganu), South Zone (Johor Bahru) and North (Kepala Batas). In total, there are 12 tribunal courts operating throughout Malaysia, 4 Tribunal courts in Putrajaya, 1

Tribunal located at each zone and an additional of 5 Tribunal courts located in Kuala Lumpur, Penang and Muar.

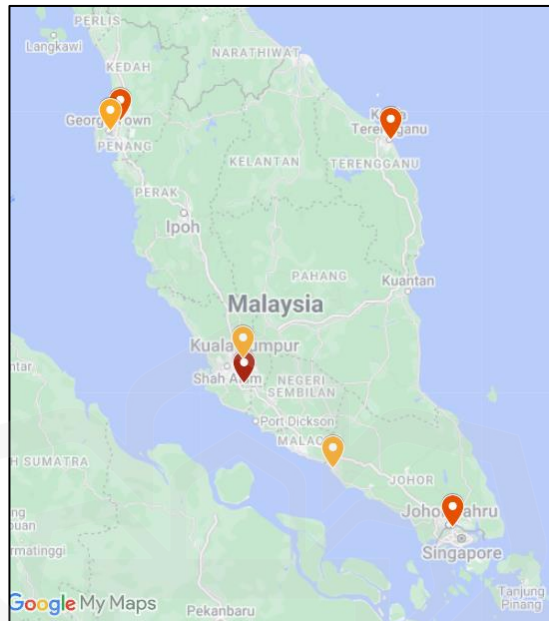


Figure 2.13 Location of Strata Management Tribunal Headquarters, Zones and Additional Courts

Source: KPKT's website, (2023), Google Maps (2023)

Identical to the establishment of other tribunals, the strata management tribunal was established to hear and handle strata management claims without difficulty, economically and swiftly (John Chan, 2022). As stipulated under the Act, the Tribunal is required to make its Award, where feasible, within 60 days from the first day of hearing. Claims that are under the Tribunal's jurisdiction includes:

- i. Claims of less than RM25,000.00
- ii. Disputes over performance or failure to perform function, duty or power as imposed by the Strata Management Act.
- iii. Disputes over cost of defect repairs in strata parcel, building, or common property
- iv. Claims for outstanding maintenance charges and sinking funds
- v. Claims over convening of general meeting

- vi. Claims for order to invalidate meeting proceeding that contravened any provision under the Strata Management Act
- vii. Claims for an order to annul voted resolutions due to denied voting rights or due notice failure
- viii. Claims for an order to revoke by-laws
- ix. Claims for insurance claim
- x. Claims to convince supply of information / documents from the developer, JMB or MC
- xi. Claims for an order to provide consent for common property alterations
- xii. Claims for an order to sustain, differ or dissolve the Commissioner's decision.

The series of claims available under the tribunal's jurisdiction entitles several parties, in other word a procedure that is open to public, to make tribunal claims where feasible. This includes the developer, the purchaser, parcel owners, proprietor, JMB, MC, subsidiary MC, managing agents as well as any other person of interest with Tribunal's approval (John Chan, 2022). The 14 issues and disputes that can be claimed in Tribunal, allowing 8 parties to claim comes with a schedule of prescribed fees, Table 2.12.

Table 2.12 Strata Management Tribunal Prescribed Fees

No.	Proceedings	Forms	Fee (RM)
1	Filing of statement of claim for residential	1	100.00
2	Filing of statement of claim for commercial / industrial	1	200.00
3	Filing statement of defence and counterclaim for residential	2	100.00
4	Filing statement of defence and counterclaim for commercial / industrial	2	200.00
5	Filing defence to counterclaim for residential	3	50.00
6	Filing defence to counterclaim for commercial / industrial	3	100.00
7	Payment to the person summoned	12	100.00
8	Filing of notice of application for residential	14	50.00
9	Filing of notice of application for commercial / industrial	14	100.00
10	Filing of application to set aside award for residential	15	50.00

No.	Proceedings	Forms	Fee (RM)
11	Filing of application to set aside award for commercial / industrial	15	100.00

Source: (Strata Management Act 2013 (Act 757), 2013)

Case in point, when a strata home owner files for Tribunal claim, the following forms and fees in Figure 2.14 are be imposed.

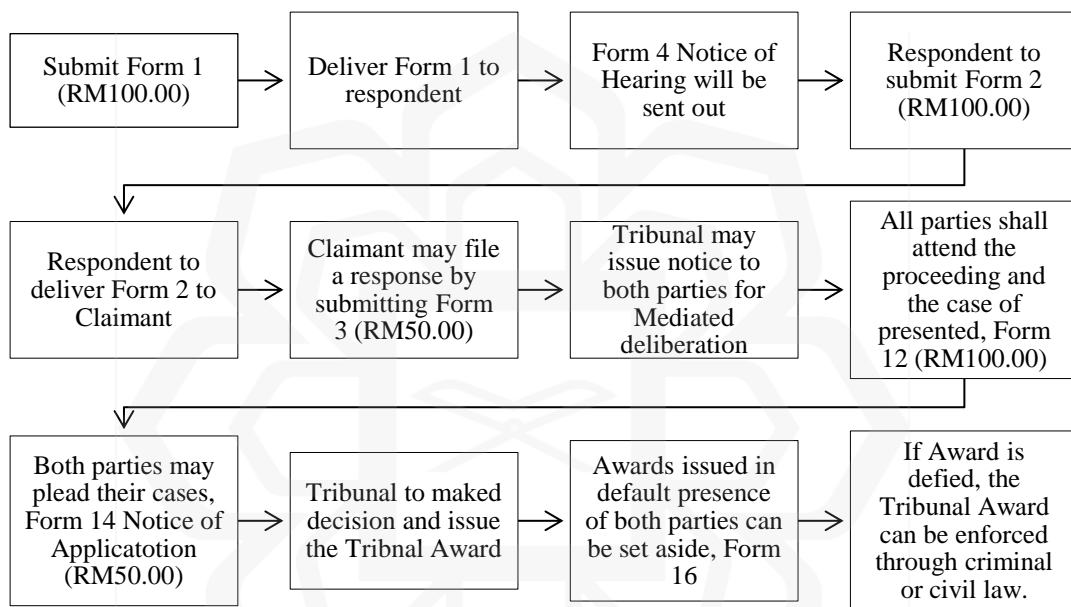


Figure 2.14 Steps in Filing Claims at Strata Management Tribunal

Source: (Roznah, 2022b)

In comparison, purchasers filing claims with the Home Buyers' Tribunal are only charged with RM10.00. The fees imposed though are higher than the specified fees under the Home Buyers' Tribunal are still considered affordable in comparison none-Tribunal alternatives. The following Table 2.13 shows the cost comparison between filing with Tribunal and the cost of claims made in court. In addition to the above-listed costs in filing for Court procedures, the legal cost or fee is a different amount, that may cost between RM3,000.00 up to RM15,000.00 depending on the legal firm hired, the court level, inclusive of other costs that may reflect the size of the property in question.

Hence, the final amount for a court procedure is approximately costing **up to RM17,000 per case.**

Table 2.13 Comparison of Dispute Resolution Costs and Duration

Proceeding	Magistrate Court Cost (RM)	Session Court Cost (RM)
Summons	100.00	200.00
Affidavit of Support	8.00	8.00
The Oath Commission verifies the Affidavit of Support	12.00	12.00
Filing an Affidavit of Service	8.00	8.00
Command and Order draft files	40.00	40.00
Distress Writ File Distress Writ File	60.00	200.00
Deposit to Court upon receipt of Bailiff letter stating date of execution (Payment due before the day of order execution)	1,000.00 + 8.00	1,000.00 + 8.00
Sub-Total	RM 1,236.00	RM 1,476.00
Legal Fees	RM 3,000.00 – RM 15,000.00	
Total (Approximate)	Up to RM 17,000.00	

As previously raised disputable issues in strata management, the Tribunal is considered to be the ideal alternative for dispute resolution compared to resolving disputes in the court (Mazliza et al., 2015). The COB of DBKL however in consideration of the almost 4,000 complaints lodged by Kuala Lumpur high-rise residents between the year 2012 and 2017, while overseeing 5,859 strata developments with 494,263 units in total, have introduced another dispute resolution alternative, known as Kuala Lumpur Strata Community Mediation Centre, purposively to cater to the increasing high-rise population within Kuala Lumpur, at no imposed charge (EdgeProp.my, 2018). In which the commissioner has received an approximately 5,300 reports as of December 2022. The most common complaints received includes, indiscriminate dumping, illegal renovations and haphazard parking, relevant maintenance and management issues as well as complaints related to general meetings and the financial account (Farid, 2023).

Strata developments without management bodies may file complaints directly with the commissioner, but ultimately, as long as related claims are under the strata management Tribunals' jurisdiction, claimants can be the developer, purchaser,

proprietor, JMB, MV, the sub-MC, managing agents and any related parties. The most typical disputes referred to the strata management tribunal are outstanding payments or due sum, sub-standard management, dispute over defect rectification done by the developer, matters relating to general meeting, disputes between strata owners, and dispute over unclear classification of common property (especially relating to leakages) (REHDA Institute, 2018).

Table 2.14 Cases Registered in Strata Management Tribunal, 2017- September 2022

State	2017	2018	2019	2020	2021	2022
Johor	73	129	752	585	505	876
Kedah	1	11	50	43	81	1
Kelantan	0	0	7	1	0	24
Melaka	26	26	23	40	100	95
Negeri Sembilan	123	259	180	185	102	96
Pahang	258	106	68	66	117	102
Perak	8	361	33	358	219	106
Perlis	0	0	0	0	0	0
Pulau Pinang	422	508	654	835	549	716
Sabah	0	0	0	0	0	0
Sarawak	0	0	0	0	0	0
Selangor	1,878	2,103	2,283	2,804	2,478	1,937
Terengganu	2	7	10	5	1	24
Wilayah Persekutuan	1,599	1,765	1,615	1,682	1,699	2,016
Total	4,390	5,247	5,675	6,605	5,851	5,992

Source:(KPKT, 2021b, 2022)

Table 2.15 Cases Settled in the Strata Management Tribunal, 2017- September 2022

State	2017	2018	2019	2020	2021	2022
Johor	53	166	547	292	552	980
Kedah	1	3	37	30	19	3
Kelantan	0	0	4	1	1	20
Melaka	19	26	22	10	70	133
Negeri Sembilan	68	300	235	186	115	117
Pahang	129	166	59	25	69	140
Perak	7	126	290	205	272	278
Perlis	0	0	0	0	0	0
Pulau Pinang	373	585	663	553	858	661
Sabah	0	0	0	0	0	0
Sarawak	0	0	0	0	0	0

State	2017	2018	2019	2020	2021	2022
Selangor	1,156	2,103	2,423	1,772	2,368	3,182
Terengganu	2	7	6	7	0	22
Wilayah Persekutuan	927	1,765	1,820	1,027	1,595	2,767
Total	2,735	5,247	6,106	4,108	5919	8,303

Source:(KPKT, 2021b, 2022)

Despite claims against defaulters in the Tribunal, some cases will still be for naught as some defaulters do not show up for Tribunal hearing, nor will they pay the fines, thus, the debt will continue to be unsettled. In the instance where the claimants or the counter claimant disagree with the Award, the tribunal Award can be challenged with grounds that there is a grave anomaly that has affected Tribunal decision. However, despite such allowance, the recorded judicial maintains to be at a lower rate throughout 2017 to September 2022 as shown in Table 2.16 below.

Table 2.16 Judicial Review Cases in the Tribunal for Strata Management, 2017-September 2022

State	2017	2018	2019	2020	2021	2022
Johor	0	0	1	6	2	3
Kedah	0	0	0	0	3	0
Kelantan	0	0	0	0	0	0
Melaka	0	1	2	0	0	0
Negeri Sembilan	14	1	0	0	0	1
Pahang	0	5	2	3	0	0
Perak	0	0	0	1	1	0
Perlis	0	0	0	0	0	0
Pulau Pinang	0	3	4	2	2	2
Sabah	0	0	0	0	0	0
Sarawak	0	0	0	0	0	0
Selangor	0	3	7	87	2	2
Terengganu	0	0	0	0	0	0
Wilayah Persekutuan	4	9	8	11	4	4
Total	18	22	24	110	14	12

Source:(KPKT, 2021b, 2022)

In the case where the default refuses to comply to the Tribunal award, the party aggrieved may file for Notice of Award Default at the Tribunal, which can be further be used for enforcement or prosecution. Even though not many opted to proceed with judicial review, many refusals to comply to the Tribunal Award instead (see Table 2.17).

Table 2.17 Award Default under the Tribunal for Strata Management, 2017- 2021

State	2017	2018	2019	2020	2021
Johor	0	10	129	100	97
Kedah	0	0	41	8	4
Kelantan	0	0	0	0	0
Melaka	18	10	4	1	0
Negeri Sembilan	40	68	124	112	0
Pahang	11	136	38	10	3
Perak	5	4	4	12	59
Perlis	0	0	0	0	0
Pulau Pinang	0	21	122	133	68
Sabah	0	0	0	0	0
Sarawak	0	0	0	0	0
Selangor	209	293	587	456	343
Terengganu	0	0	0	0	6
Wilayah Persekutuan	172	321	302	368	210
Total	455	863	1,351	1,200	790

Source:(KPKT, 2021b, 2022)

These reported data however, is insufficient to be further analysed or discussed in further depth as no further details were given on the type of claims made nor which party submitted claims against which. Nevertheless, these data between Table 2.13 to Table 2.17 were able to show the significant role that the strata management tribunal has in solving issues of disputes amongst relevant parties and more have become more aware of its function and reliability. At the same time, to accommodate the increase in high-rise strata developments in recent years, the time will come for other dispute resolution channels to be considered or further improvements to expediate the processes of Tribunal claims and hearings, in hopes that any further severity or unfortunate event caused by disputes can be avoided (Mazliza et al., 2015).

2.4 RELATED DEVELOPMENT LEGISLATION AND PROCESSES

This section delves into other legislation that one way or another is associated with the strata management act and residential strata developments.

2.4.1 Housing Development (Control and Licensing) Act 1966 [Act 118]

This legislative document has the greatest role in regards to housing / residential developments in Malaysia, whether it is landed housing, high-rise strata housing, inclusive of commercial residential developments as of the current version. Aside from the two crucial requirements under this Act, that is the Developer's License and the Sale and Advertisement Permit, this section will also highlight the impact and relation this legislation has towards the strata management act.

<u>THIRD SCHEDULE</u>			
(Clause 5)			
Instalments Payable		%	
1	Immediately upon the signing of this Agreement	10	RM
2	Within thirty (30) business days after the receipt by the Purchaser of the Developer's written notice of the completion of:		RM
	(a) the work below ground level of the said Building comprising the said Parcel including foundation of the said Building	10	RM
	(b) the structural framework of the said Parcel	15	RM
	(c) the walls of the said Parcel with door and window frames placed in position	10	RM
	(d) the roofing / ceiling, electrical wiring, plumbing (without fittings), gas piping (if any) and internal telecommunication trunking and cabling to the said Parcel	10	RM
	(e) the internal and external finishes of the said Parcel including the wall finishes	10	RM
	(f) the sewerage works serving the said building		RM
	(g) the drains serving the said Building	5	RM
	(h) the roads serving the said Building	2.5	RM
3	On the date of the purchaser takes possession of the said Parcel with water and electricity supply ready for connection	12.5	RM
4	On the date the Purchaser takes vacant possession of the said Parcel as in item 3 where the Developer has executed and delivered to the Purchaser or the Purchaser's solicitor the instrument of transfer in favour of the Purchaser together with the original issue document of strata title to the said Parcel	2.5	RM
5	On the date of the Purchaser takes vacant possession of the said Parcel as in item 3 and to be held by the Developer's solicitor as stakeholder for payment to the Developer as follows: -	5	RM
	(a) 2.5% at the expiry of the period of 8 months after the date the Purchaser takes vacant possession of the said Parcel; and		
	(b) 2.5% at the expiry of the period of 24 months after the date the Purchaser takes vacant possession of the said Parcel.		
TOTAL		100%	RM

Figure 2.15 High-rise Housing Sale and Purchase Agreement, Third Schedule

Source: Laws of Malaysia (Act 118)

As shown in Figure 2.15, item 4 of the schedule states that the payment 2.5% of agreed purchase price can only be approved to the developers when the delivery of VP complies the issuance and transfer of strata title. This particular clause under the housing development act is one of the main reasons for the strata titles act recommends simultaneous delivery of VP and transfer of strata title, which would benefit both the developer financially and the purchaser as the new parcel owner. However, based on a study conducted on the factors of delayed issuance of strata title, it was concluded that the top two causes were default of the developers where, due to difficulties in meeting the requirements according to the related legislation and due to lack of cooperation by

the developer, in which many developers delayed or took too long to apply for the strata title as some are bankrupt or have ceased operation, leaving outstanding strata title application for the strata scheme (Rubiah et al., 2018). While several studies found that this delay may also happen due to refusal of purchaser to pay for the stamp duty and legal fees necessary for the transfer process, the lack of understanding on the significance of a complete transfer of strata title and / or disagreeing or dissatisfaction on the management and the maintenance fee (Kamaruzzaman et al., 2010; Rubiah et al., 2018)

In many cases, developers faced challenges in claiming payment for item no. 4, so instead of dwelling on the issues surrounding the delayed strata title issuance, Developers as alternative proceeds to complete the defect liability period of 24 months and satisfying the issuance of Certificate of Making Good Defects by the Architect. The developer's inability to fulfil all items under the payment schedule, also meant the housing developer account never actually come to a close. However, according to the issued by the National Housing Department / Jabatan Perumahan Negara (JPN) in 2018 update on the *Application Guidelines for The Withdrawal of All Money from The Promotion Account Housing Under Rule 11, Housing Development Regulations (Housing Development Account) 1991*, this guideline has included an alternative route for the developer to withdraw all money despite the incomplete transfer of titles after the expiry of the defect's liability period.

The processes of both landed and strata housing are the same, especially in regards to the licensing, local authorities' requirements and provisions under the UBBL. There are however differences in the length of the construction period for landed and high-rise housing developments which are 24 months and 36 months respectively, even though the length of DLP is similar, for 24 months. Another significant difference between the two developments is in regards to the land matters or the issuance of its titles, which only strata housing requires the SiFUS application for the issuance of strata titles.

2.4.2 National Land Code [Act 828]

Land development in Malaysia is governed under land laws, that includes the National Land Code 1965, the Strata Titles Act and other planning laws such as the Town and Country Planning Act and the Drainage and Building Act. Land matters in every development project will commonly involve the condition of land use, and the category of land use. The implied conditions under the NLC are listed under these three categories; agriculture, building and industry. In relation to this study in particular, building land category allows developments for residential, administrative, commercial, transport and other development providing the services, educational, medical, inclusive of other welfare facilities. The NLC land development methods in response to the wide variance of land condition includes change of land conditions, partition of land, surrender and re-alienation and subdivision to name a few. The NLC however is limited to the West of Malaysia.

2.4.3 Town and Country Planning Act 1976 [Act 172]

The Town and Country Planning Act was introduced concurrent to the Local Government Act. This legislation was established to provide a consistent planning legislation that can be applied to all states. This Act empowers the local authority to develop structure plans that outlines social, economic and physical aspects of development planning and to use these structure plans as guideline in creating Local Plans that regulates land use, property development and building use. The receipt of Building Approval is necessary as it is a one of the documents required in the SiFUS and CPSP application.

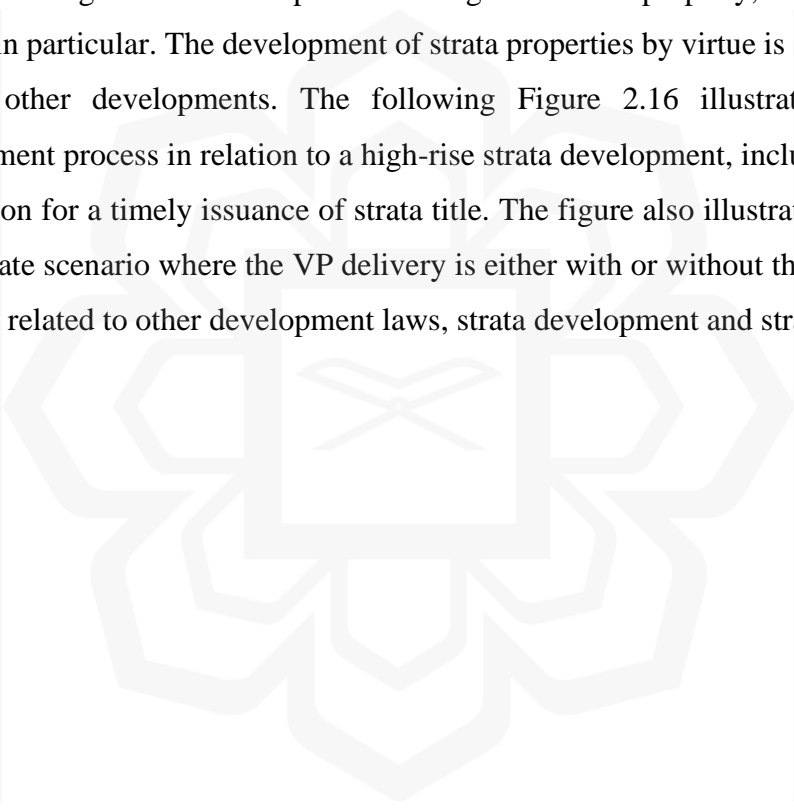
2.4.4 Street, Drainage and Building Act 1974 [ACT 133]

This Act is the principal legislation to the Uniform Building By-Law 1984 [UBBL], which is the focus of this section. This by-law gives the meaning to following terms; building plan, and Certificate of Completion and Compliance (CCC). CCC under this

law has imposed power to the Professional Architect or Professional Engineer or Registered Building Draughtsman of a project to issue the CCC before the owners can take possession and to occupy their purchased properties.

2.4.5 Development Process

Following the overview of related legislation in a housing development process, this section further reviews the development process as a whole, reviewing the processes involved throughout the development of a high-rise strata property, a residential strata scheme in particular. The development of strata properties by virtue is similar in nature to any other developments. The following Figure 2.16 illustrates the general development process in relation to a high-rise strata development, including the SiFUS application for a timely issuance of strata title. The figure also illustrates the inclusion of alternate scenario where the VP delivery is either with or without the strata title and how it is related to other development laws, strata development and strata management laws.



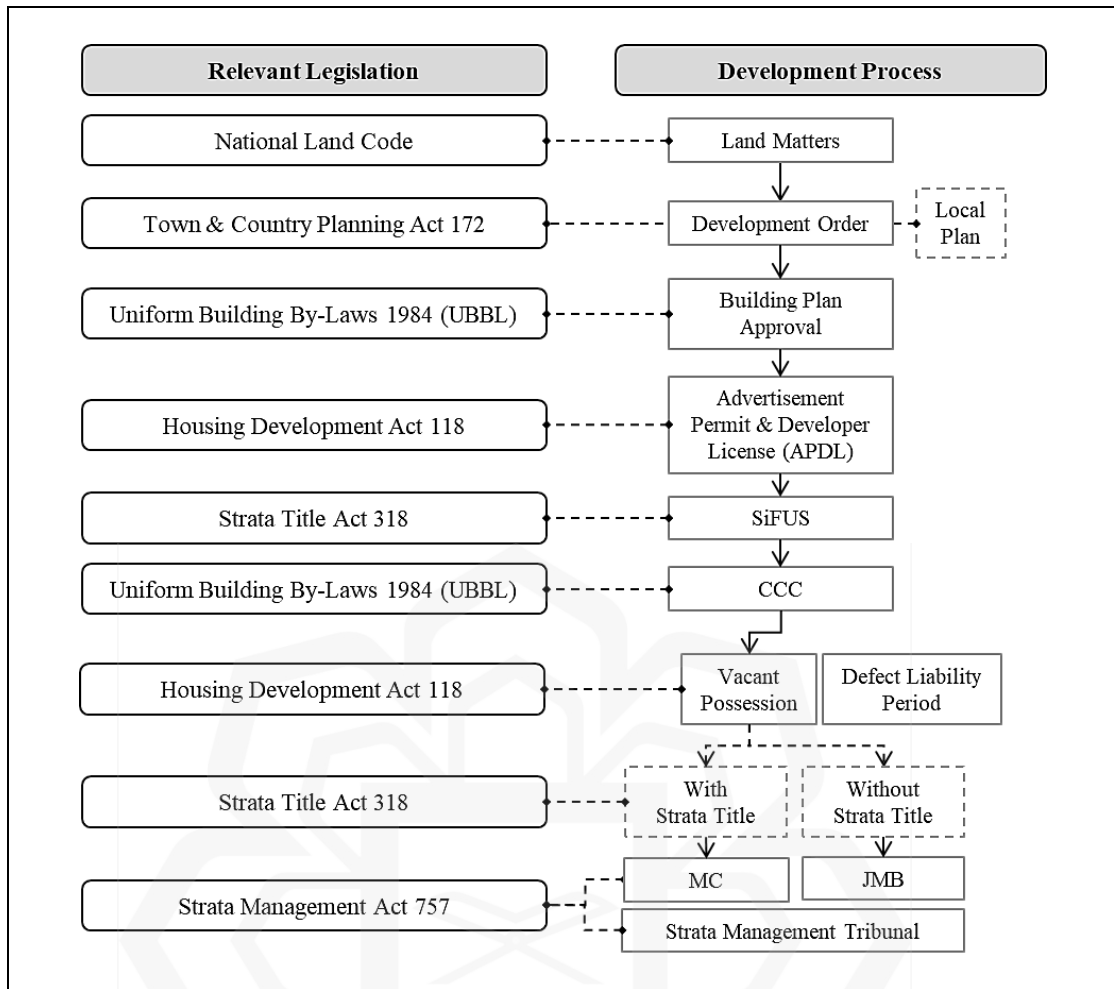


Figure 2.16 Relevant Legislation in Development Process

Source: (Ezumi Harzani, 2018; PAM, 2017)

A development process commonly starts with the initial planning or the design stage, this is inclusive of the feasibility study. The initial feasibility study was conducted to determine whether the development of the said residential strata scheme is feasible or otherwise.

For matters relating to the land matter, the developers shall take into account on the type and classification of land use prior to the actual planning and submission for planning approval. The developer involved has the responsibility to determine whether the intended development plot is meant for building and/or residential use. If in the case which the pre-determined land use is unsuitable for a development of a residential strata,

measures to change the condition of land use shall take place. Another Act (legislation) is involved during this stage of development process is the *National Land Code, Section 124*, in particular. Upon confirmation on the land use status, the developer will then proceed with the submission for planning approval. Simultaneously, the developer will also proceed with the application for the Housing Developer's Licensing as well as the Sale and Advertisement Permit from the Ministry of Housing and Local Government (KPKT), in accordance to the Housing Development Act 118.

A valid Advertisement Permit and Developer's License (APDL) is an approval for the Developer to proceed with the actual physical development. APDL is a controlling mechanism used by the government that enables them to oversee housing development activities, to assist the collection of data and information and to facilitate law enforcement. However, there is no synchronization between applying for the APDL (to JPN) and Building Plan approval (to the local authority), where there are cases where developers delayed their APDL despite having settled related land matters and have obtained the Building Plan approval (Ezumi Harzani, 2018).

In current practice, the possession of building approval is as good of an indication for the developer to kick-off the on-site construction works, which can be progressively monitored via the payment stages as provided in the, Third Schedule of the Sales and Purchase Agreement (SPA or SPJB) under the Housing Development Regulation. As soon as the structure of the said building is completed, the developer will submit for the Certificate of Share Unit Formula (SiFUS). Moreover, the strata management act made it clear that developers must obtained approval of the COB on the schedule of parcels prior to sale of any parcel (*Sect.6, Strata Management Act.*) and as required by the PTG office, the application to file for the Schedule of Parcels must be provided with the SiFUS number, hence, it is only befitting that the developer to immediately submit the SiFUS application as soon as the building plans are approved for a timely delivery of VP with of strata title. That said, this dependant relationship between SiFUS, schedule of parcels and the BP approval is in reality causes delay to the application for issuance of strata title. Case in point, at any point of time the developer made any amendment to the design or the building plan, the developer is required to repeat the SiFUS application procedures as well as to resubmit the schedule

of parcels to the COB, which is critically inefficient, especially when changes to BP is due to possible new building requirement by the authority or unforeseen on-site condition (Ezumi Harzani, 2018).

These processes involving SiFUS, preparing for schedule of parcel and approval by the COB during the building construction stage are simplified as flowchart in Figure 2.17 below.



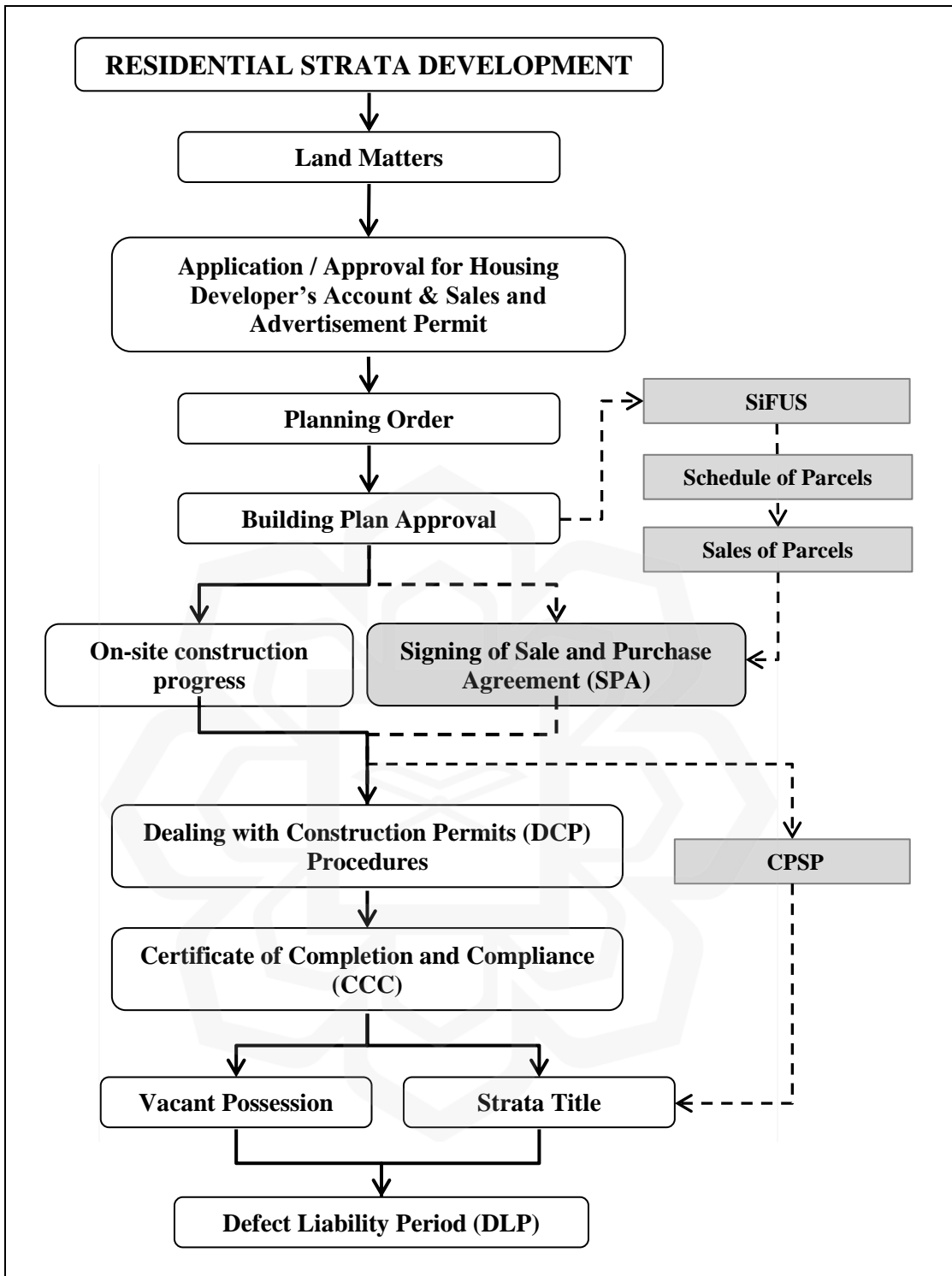


Figure 2.17 Matters related to Strata Title during construction stage

Source: (Ezumi Harzani, 2018; Halim Hong & Quek Advocates and Solicitors, 2015; JUPEM, 2015)

The strata development process continues until the completion of the building plan as a whole until the delivery of the first Vacant Possession (VP). The VP by virtue should come together with the Certificate of Completion and Compliance (CCC) and not partial CCC. This is crucial considering it would be injustice for the strata unit owners to receive their vacant possession and to fulfil the management and maintenance charges without the comprehensive completion of the strata unit and its ancillary parcels. Should the VP, CCC and the strata titles are issued within the same period, no further issues will occur pertaining to the constitution of the MC. The reason being that the requirement for the constitution of an MC is to have a minimum of 25% share aggregate.

Upon reaching the super structure stage, as shown in Figure 2.17, with the assumption that all precedent procedures and documents are met, processes in Figure 2.18 shall have effect. The developer shall pursue the application of Certificate of Proposed Strata Plan (Sijil Cadangan Pelan Strata, CPSP), followed by the strata title application. Assuming that all procedures and documents are fulfilled in time for the vacant possession, the purchasers shall be able to be handed over the vacant possession and the strata title simultaneously.

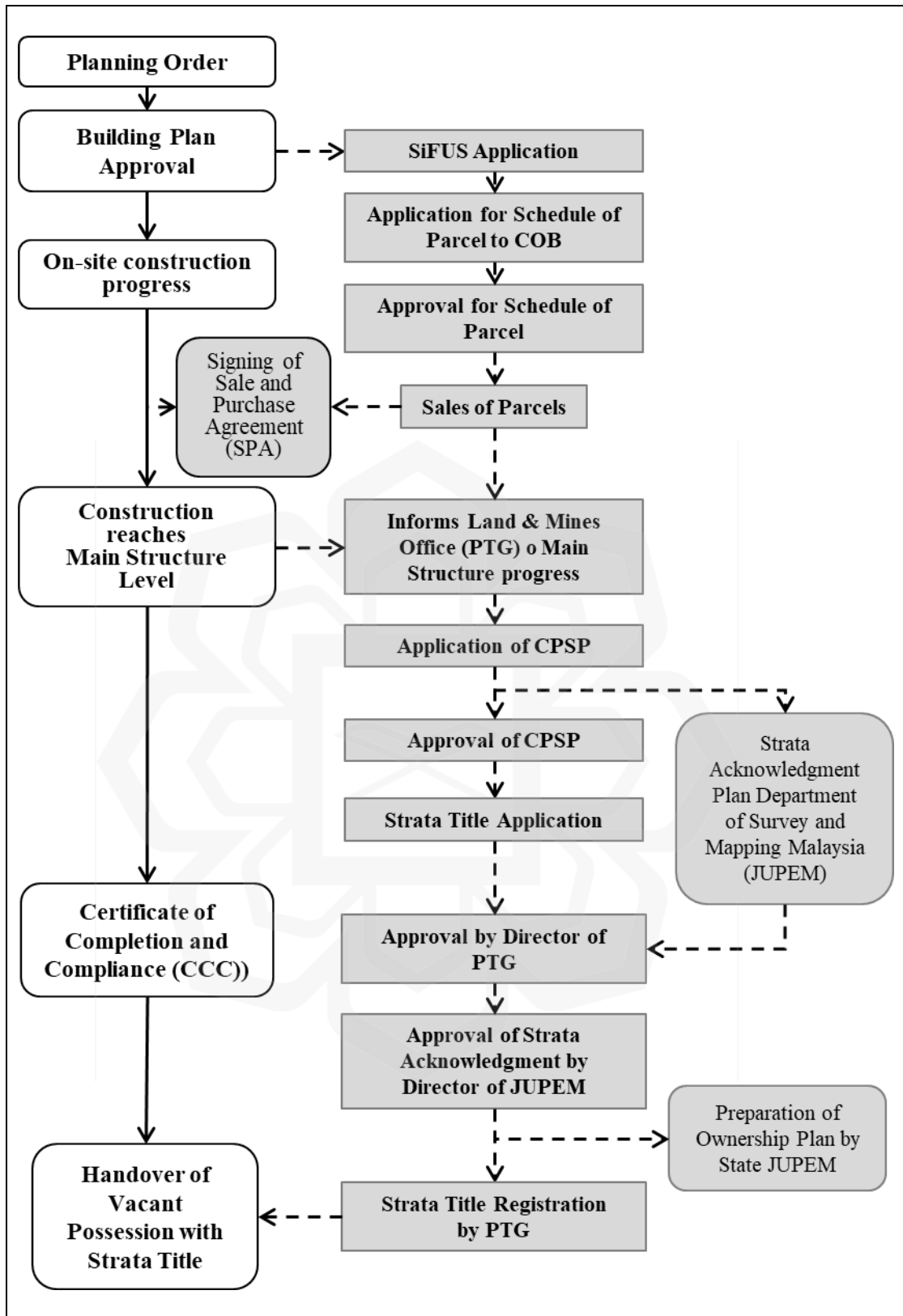
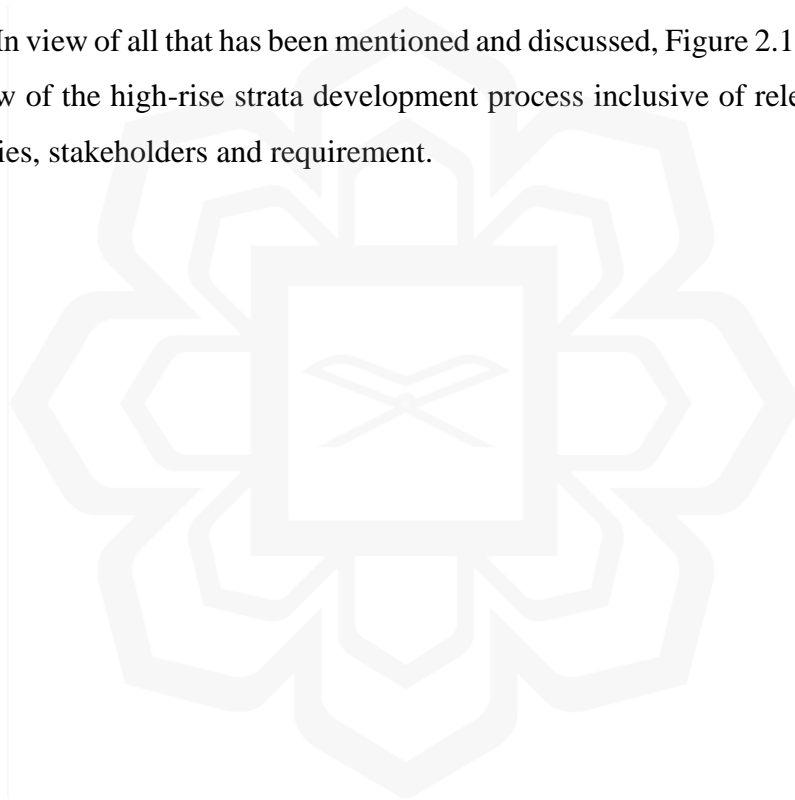


Figure 2.18 Residential strata development

Source: (Ezumi Harzani, 2018; Halim Hong & Quek Advocates and Solicitors, 2015; JUPEM, 2015)

However, in the case where the developer proceeds with VP without the strata title, that either delayed due to events during preparing the schedule of parcels of or the during the CPSP stage, the establishment of strata management may continue to take place with periodic involvement of the developer's management period, and the Joint Management Body (JMB). Upon the perfected transfer of the minimum 25% share units aggregate, the developer may proceed with the setting up of the Management Corporation (MC), then their responsibilities will come to a close.

In view of all that has been mentioned and discussed, Figure 2.19 is an illustrated overview of the high-rise strata development process inclusive of relevant legislation, authorities, stakeholders and requirement.



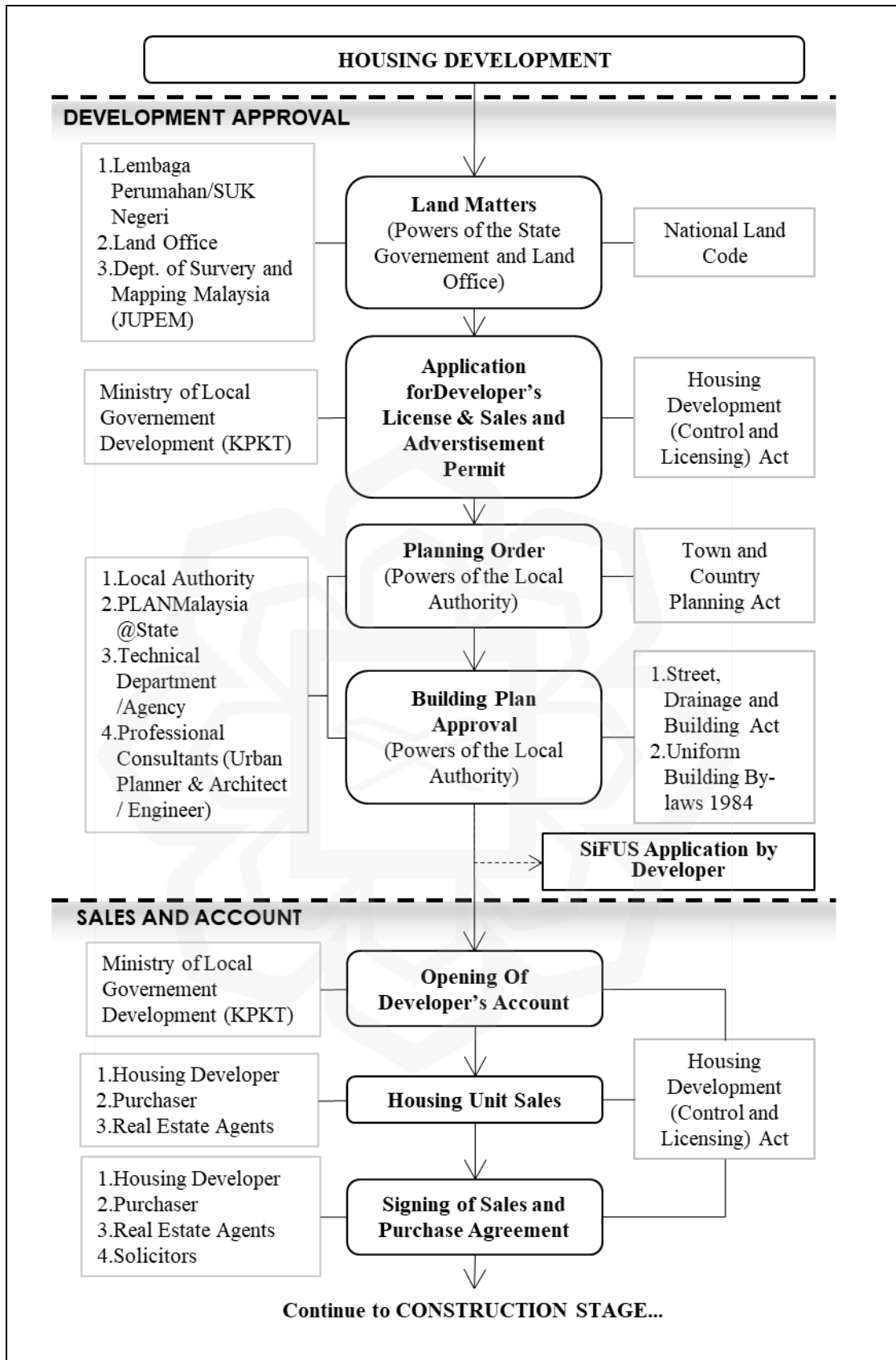


Figure 2.19 Development process

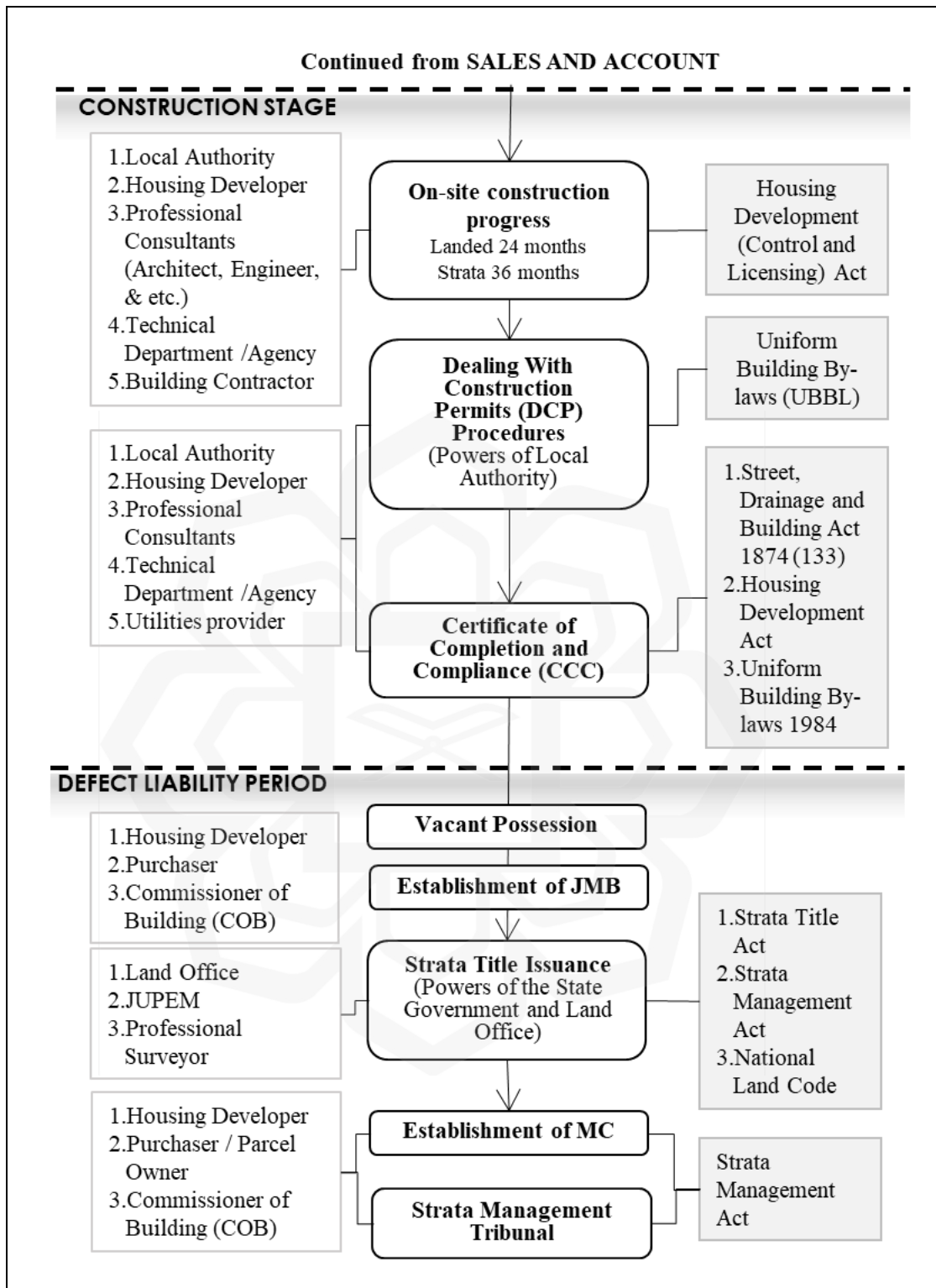


Figure 2.19 Development process (continued)

2.5 CHAPTER SUMMARY

This chapter was able to further elaborate and reorganise detailed descriptions on the development process encompasses related written law, the parties and authorities involved, further focuses on the establishment of management body post construction stage. This chapter continues to incorporate topics of strata management laws and practices whilst highlighting roles of parties involved as well as the importance of improving strata management for the overall well-being of the residents in affordable high-rise housing.



CHAPTER THREE

BUILDING MANAGEMENT, MAINTENANCE AND BEST PRACTICES

3.1 INTRODUCTION

This chapter aims to identify, and to conduct comparison amongst best practices within the scope of building maintenance and management. The variance in identification of maintenance cost plannings and affects impacts the long-term maintenance budgeting, likewise has adverse impact towards the quality of building condition. This chapter also looks into the best practices in countries with its population largely contributes to great demands for strata or high-rise dwellings, namely Australia, Singapore and Hong Kong. Hence this section elaborates on the factors influencing the maintenance cost that has significant outcome towards the overall building quality, lifespan and value.

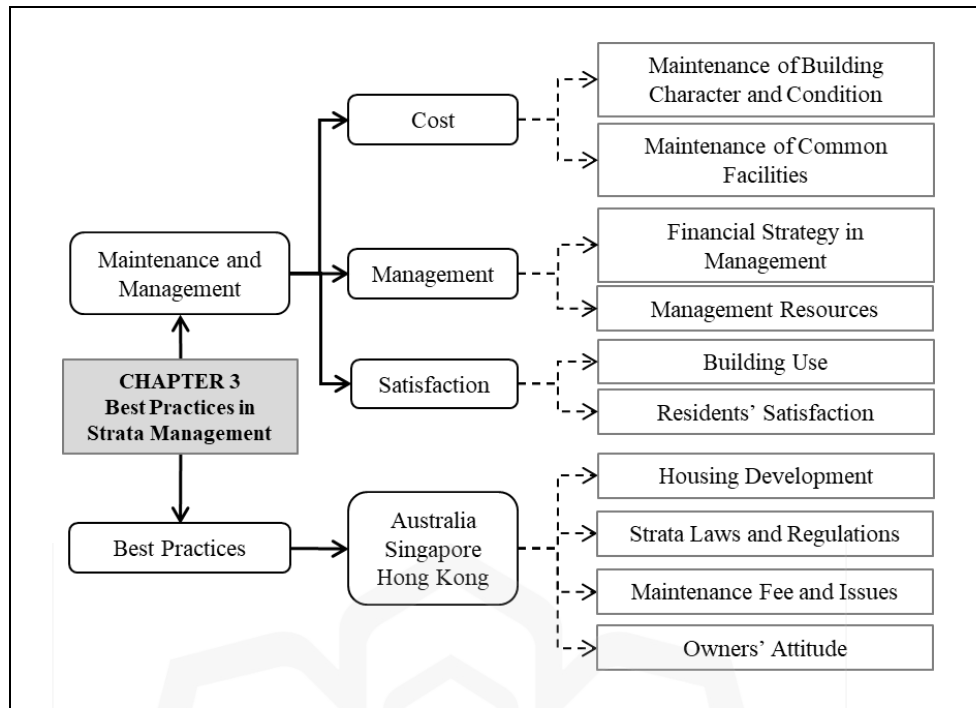


Figure 3.1 Literature Framework on Strata Management and Maintenance

3.2 MAINTENANCE AND MANAGEMENT

Several studies were done relating to the maintenance costs either residential, commercial or public buildings. For the purpose of ensuring the costs of maintenance and operation of the building management are efficiently conducted within the financial capacity, maintenance cost and the sinking fund was introduced. These two forms of financial contribution to the management is crucial and are in accordance to the Strata Management Act 757 (ILKAP, 2020). In another prominent study conducted by El-Haram & Horner (2002), the costs of building maintenance can be generally categorise as (i) Building features, (ii) Tenancy factors, (iii) Maintenance, (iv) Political, among others. While a considerable amount of literature reported factors influencing maintenance costs by assessing causes of increasing maintenance budget and expenditure. This section begins by laying out the underlying dimensions of factors and issues in building and facility maintenance costs as shown in Figure 3.2.

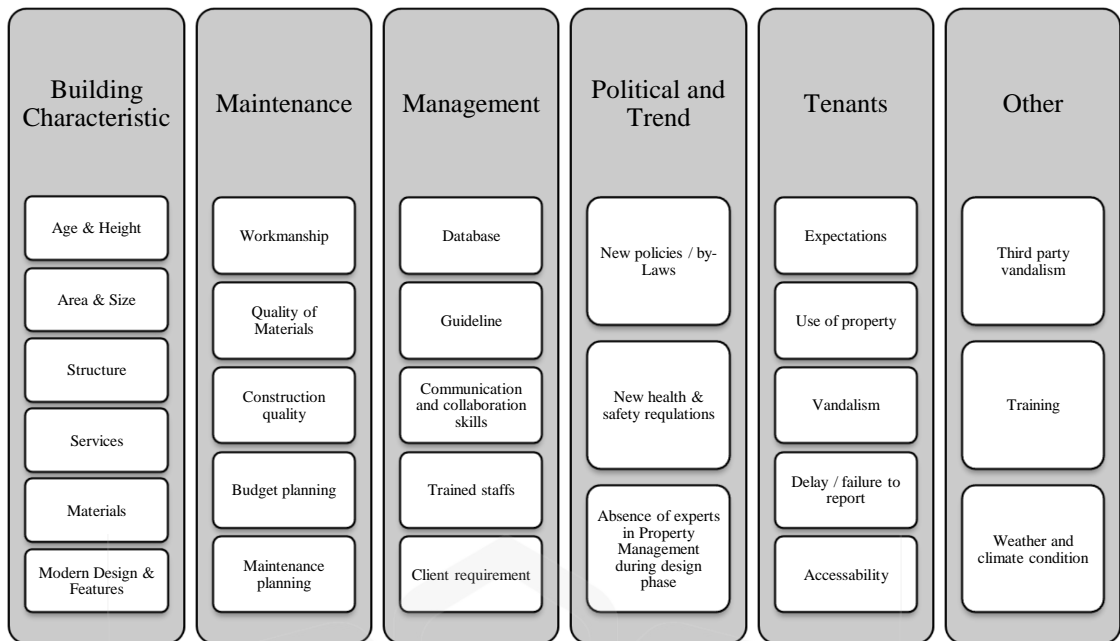


Figure 3.2 Services and attribute of building management affecting maintenance cost
 Source: (Ali et al., 2010; El-Haram & Horner, 2002; Islam et al., 2019; Mustafa et al., 2015)

The following sub-sections provides further in-depth discussion on the above framework.

3.2.1 Maintenance of Building Character and Condition

Building features includes the building age, its function, location, size, type of structure, building height, building finishes, services, construction quality and materials. Several studies on relationship of these factors and maintenance cost even since the early 1970s (El-Haram & Horner, 2002). Building height has an impact as it would involve additional tools and plants compared to buildings with less flooring, scaffoldings, or cranes may need to be installed or employed to complete related external maintenance works that are of certain height. Building age has the greatest cost impact as it involves costs for either upgrade or major repair works, an even higher cost consideration should the prevention maintenance works were poorly executed or not executed at all. The ideal

lifespan of a high-rise apartment on the average aged between 50 to 60 years (Miller & Muhammad Shafiq, 2022). A study done to examine the factors with significant impact on residential maintenance cost and found that tenants expectations, budget, improper usage of property and energy cost is amongst the findings that are of highest cost impact.

The pros of high-rise buildings include its ability to optimize floor space by improving the land use efficiency, enabling more space for variance uses and activities compared to low-rise buildings. The more recent design and use for strata developments were able to include green spaces, improving the users' well-being (Norsafiah et al., 2023; Wang & Xu, 2021) as good as low-rise developments. However, high-rise buildings tend to age faster caused by environmental exposure, the likes of temperature, dampness, and wind loads, which have substantial influence of the overall building durability (Ferreira et al., 2022).

For consideration in improving the building age, maintenance can be divided into two categories, the short term (preventive) and the long-term maintenance (upgrade). A long-term maintenance would highly involve sinking funds, thus it is important that the contribution of sinking fund are managed and properly audited, this is to ensure that the strata management body or developer are able to afford major refurbishment or upgrade every 30 years (Miller & Muhammad Shafiq, 2022; Swiss Life, 2017), thus explains the significance of sinking fund contributions in strata management.

Unfortunately, dependency on sinking fund contribution is however unreliable, evidently due to parcel owners or residents' refusal to contribute. Even though contribution of the sinking fund only amounted to 10% from the imposed maintenance fee (Lau, 2019b; Strata Management Act 2013 (Act 757), 2013). DBKL stated in a report that parcel owners of low-cost were only charged around RM35 to RM45 but in all honesty are only willing to pay RM20, which is way less of an amount compared to the actual amount that sustained by the management body to manage and maintain the strata property. Compared to the actual maintenance costs, ideally the maintenance fee charges should sum up to between RM80 to RM90 (Azlan Zambry, 2023). This huge gap is one of many reasons to why most management bodies are facing difficulties to

conduct proper maintenance work. The recent Covid-19 caused a huge impact towards the management's expenditure due to additional costs, that forces the management bodies to utilise the collected sinking funds to cover the additional costs sustained towards fulfilling the government's health and safety policies to control the pandemic (Bernama, 2021).

Moreover, the quality of the building structure greatly depend on the structural design consideration and specifications affects the building age and future condition (Shoar & Payan, 2022), eventually influencing the maintenance cost of the building. Therefore, thorough consideration and budget on the initial development cost is significant towards the building life span. Inputs and advise by a good design and in-depth research on maintenance records and history during the design phase has potential great impact towards the building for long-term basis. Maintenance records are crucial reference for the design team in order to avoid from repeating the same mistakes (Abas et al., 2021; Ahmad Ezanee et al., 2015). Both the consultants and clients' supervision has great impact towards the materials' quality as well as the overall workmanship, as this would improve the contractors' on-site performance (Abdul-Rahman et al., 2014; Wahi et al., 2018)

Most defects in affordable housing developments were outcome of poor workmanship, installation as some contractors chose to hire the less skilled labour as a mean of increasing the profit margin. Risking structural quality for bigger margin should not be practiced, as each specification, material quality and workmanship indisputably contributes to the building's life cycle, inclusive of the future maintenance service costs, operational cost and other associated costs (Abas et al., 2021). Studies were done and the results confirms that skilled labours have significant positive impact towards the project quality compared to unskilled labours and studies in Malaysia highlights the urgent growth of local-skilled labour to reduce foreign labour dependency (Hussain et al., 2020; Mohd Fateh et al., 2022; N. Sulaiman et al., 2021). Which becomes one of the reasons why the Construction Industry Development Board (CIDB) initiates and induces policies and modules that aims to improve construction quality through skilled labours. CIDB offers skill trainings that are open to all, especially labours amongst registered contractors to be trained for skill improvements, machine

handling, and safety conducts to name a few (A. Ramli, Z. A. Akasah, 2013; Construction Industry Development Board, 2023).

Building services are systems that are installed in the building to support the building's function, comfort, safety and efficiency. Lightings either in the form of natural lighting, artificial lighting, both are essential for the residents of low-cost housing. Studies on light penetration in residential buildings and units has an indirect psychological effect towards overall satisfaction, because a good quality indoor and outdoor lighting improves mental health and contributes to a prosperous life. The importance of lighting in high-rise residential buildings is a form of design compensation for the building design that is of high density, especially for a low-cost high-rise where a singular floor layout plan have a combination of 12 to 16 units per floor (Mohd Arshard et al., 2022). Lightings along the common property, such as the corridor and the stairway are a form of building service that supports social interactions between residents, consequently improves community spirits within the strata scheme.

Maintenance of drainage, plumbing and piping system is also part of building services and is one of the highest concern amongst the low-cost strata residents, defects involving waterproofing, leakage through pipe joints, leakage through pipe fittings has become a common occurrence in low-cost housing (A. E. Hashim et al., 2012). This repetitive defect is highly a result of the current state maintenance management in Malaysia where preventive maintenance was not given utmost priority, in return requires an over budget repair work. Clogged drainage system causes some drainage to be stagnant resulted in becoming mosquito breeding ground and unsanitary health hazard that also pose risks to the children playing near or with the stagnant water (Sivanathan et al., 2019).

Building character also includes the building size. To avoid confusion between the parcel size and the size of strata scheme, it is important to reiterate that the parcel size as stated in the Strata Management Act do play a significant factor in the maintenance fee formula, as well as in formulating the share unit. Parcel size by definition is an individual unit that is intended to be under a separate strata title. Whereas the size of strata scheme for the context of this research is the overall size of the strata

scheme, taking into account the number of units, this definition is used to give weightage when measuring relationships, whether the maintenance and management charges are affected by the number of units available within a strata scheme. Hence, the contrast in definition justifies the contrasting results of the relationship test previously run between the number of units and blocks against the maintenance charges' amount.

3.2.2 Maintenance of Common Properties

Strata maintenance is not limited to the physical maintenance of the strata building and common properties, but fundamentally includes the financial maintenance as discussed in the previous section. Moving forward, the physical maintenance of the strata schemes involves works like maintaining the overall strata building and the common property. As the development of strata scheme has become more complexed and involves new concept of shared and limited common property, it is crucial for the discussion to include the list of works and items that are under the responsibility of the management body and which are excluded.

However, there is no exact or one way to define common property (Christudason, 2004), as it may differ according to the governance's context, for example, in Singapore the definition of common property, in short is in relation for any subdivided building that are specifically described in a strata plan. Whilst in Malaysia, KPKT has classified three elements to a strata scheme, which is the parcel, the common property and elements that are outside of the strata scheme.

For further understanding, each element is defined as follow, parcel by definition is an individual unit within the strata scheme, whilst land parcel is an individual lot for strata schemes of less than 4 storeys. Complementing a parcel, is the accessory parcels, that are part of the individual parcels with exclusive rights to the strata owner and / or purchaser, that cannot be sold separately. Common property are areas or spaces that are separately provided from the parcel unit and the accessory parcel but are provided for the enjoyment and access for all strata owners, and purchasers, i.e.,

the lift, roofing, playground, and the corridor to name a few. It is noteworthy that the common property provided may differ from one strata development to another.

The different types of strata developments, includes the most recent category of strata development is a mixed-use development This type of strata development comprises different usages and access to owners. Owners may not all able to enjoy all the common property within a strata scheme, in other words, common property itself can be categorised into two types, shared common property and limited (exclusive) common property (L. C. Tan et al., 2022). Common property is defined as in the following Table 3.1:

Table 3.1 Summarised definition of Common Property

Definition	Author (year)
The term “common property”, includes, in relation to any land and building comprised or to be comprised in a strata title plan, such part of the land and building: not comprised in any lot or proposed lot in that strata title plan; and. used or capable of being used or enjoyed by occupiers of two or more lots or proposed lots.	(Christudason, 2008)
Section 4 of STA defines “common property” as so much of the lot as is not comprised in any parcel (including any accessory parcel), or any provisional block as shown in an approved strata plan	(Nor Asiah et al., 2015)
A joint, non-exclusive entitlement condition where owners have joint claim and use over the property. While ‘Limited common property (LCP)’ is essentially found in a mixed development with multi usage within a strata scheme.	(W. V. Tan et al., 2019)

The cost of maintaining common property is inextricably linked with the availability and use of common property, therefore, decision-making on the determination of the procedure for carrying them must be carried out by all owners (Filatova et al., 2019). “Flat rate maintenance charges deemed unfair”, this collective argument was made by property professionals from amongst Valuers, Appraisers, Estate Agents and Property Managers to name a few (REHDA, 2019). This argument has become even more significant as the strata schemes has developed to various categories, from the basic PPR, low-cost strata, medium cost, to mixed developments, mixed developments with podiums. Considering different purpose of non-residential

premises, more flexible rules should be established regarding determination of composition of common property and possibilities for specific owners to use this property (Filatova et al., 2019), because there is a vast difference between the cost of maintaining and managing mixed strata developments from a single tower with podium (REHDA, 2019).

Above all the discussions on definitions and concerns relating common properties, the basis of common facilities according to Act are as follows:

- i. The building's structural elements;
- ii. Lifts, stairs, stairways and fire escapes;
- iii. Entrances and exits, corridors and lobbies;
- iv. Garbage house and Garbage bins;
- v. Compounds, open spaces, landscape areas, recreational areas;
- vi. Drains, water tanks, sewers, pipes, wires, cables and ducts (serving more than one parcel);
- vii. Walls, fences and exterior of common parts of the building;
- viii. Driveways, car parks and parking areas;
- ix. All other facilities, installations, fixtures and fittings; and
- x. Any part of the land used or capable of being used or enjoyed in common by all the occupiers of the building.

Whereas there are a handful of additional common facilities provided in support for the well-being of the strata residents, but may differ between category of strata scheme for example, multipurpose hall, prayer hall / surau, retail space, kindergarten, facilities for person with disabilities, playground / outdoor open space, garbage house and lifts (for high rise strata of more than 5 storeys).

A more traditional walk-up low-cost strata housing would usually have the bare minimum of shared facilities for the enjoyment of the owners and tenants, mixed-use development is much more complex in its management and maintenance system. For a walk-up strata development, the common property provided are usually limited to common hallways, corridors, vertical access i.e., staircase, shared multipurpose open space and limited parking lots (See Figure 3.3).



Figure 3.3 Examples of low-cost strata housing (walk-ups)

As for high-rise low-cost apartments, with elevators, some have better facilities compared to other, depending on the developer and the management bodies, and its location. While some development spreads through wide piece of land consisting of 7 to 8 blocks, complete with playgrounds, extra parking lots, community halls and etc., some developments are made of only 2 blocks at most, and located on the shoulders of busy local roads, and with limited space for other shared facilities and only provided with essential accessory parcel i.e., parking lots hallways, corridors and elevators and staircases (see Figure 3.4).

Where building service includes building lifts, malfunctioned lifts is a very common issue amongst high-rise residential building mostly due to the high traffic as each strata scheme with lift are vertically built with more than 5 storeys, a minimum of 10 units per floor, taking into account each household member. Lifts disfunction has

become a familiar issue amongst low-cost residential strata that highly affects the residents' satisfaction (A. T. Goh et al., 2011; A. E. Hashim et al., 2012; Wahi et al., 2018).



Figure 3.4 Examples of low-cost strata housing (with Elevators)

As previously mentioned in the earlier chapter, that PPR is a public programme that was initiated for the resettlements and providing the housing needs of the low-income group. The National Housing Department (JPN), under the KPKT as the main agency in implementing the PPR project throughout Malaysia (KPKT, 2023). The characteristic of PPR schemes is generally similar throughout, with no variance between rental PPR or the owned PPR. The basic common facilities that that are provided in PPR includes community hall, surau, retail space, kindergarten, disabled facilities, open area or playground and garbage house.



Figure 3.5 Examples of PPR schemes

In an overview of common properties provided amongst low-cost strata, low-medium cost strata housing and PPR, the objective observation concludes achieving quality management poses significant challenges. The difference in the condition of the properties is vast even amongst the low-cost strata category. One example prevails above all, that is the parking situation that has become quite the challenge as the household matures while the strata development area remains the same, so does the parking space allocation (A. T. Goh et al., 2011). To address the parking issues, along with other maintenance issues, it is important to understand further on differences between elements of strata properties that are under the jurisdiction of the management bodies and which are the responsibility and liability of the parcel owners. This

identification has an indirect impact to how satisfaction over maintenance of strata scheme is valued.

This section identifies property and/ or damages that are under the purview of either the management body, the parcel owner or neither, if the case may be, would usually fall under the responsibility of the local authority or related service provider.

Recognizing the classification of each strata element is one step towards avoiding any disputes in relation to repairs, and damages. Examples of management body's jurisdiction for repair and maintenance (Kuan, 2023) includes:

1. External Walls and Windows: Structural cracks result from poor maintenance or wear and tear, the Management is responsible for repairs, including sealant repairs between masonry walls and window frames causing leakage.
2. Facades and Roofs: Common utilities protecting all units and building from rainwater, typically maintained by Management unless specified otherwise in Strata Title Drawings.
3. Water Pipes: Maintenance responsibility depends on location (parcel or common areas, before or after water meters) and whether pipes are shared among multiple parcels, per the Strata Management Act.
4. Waste Pipes: Common waste pipes exist within parcels, and individual pipes run through common areas. The determining factor is whether these pipes are shared or not.
5. Fire Fighting Pipes: Management is generally responsible for maintaining and repairing firefighting pipes inside parcels, unless there have been modifications to the original pipes.

This section intends to further provide conclusive understanding in identifying common property in Figure 3.6 illustrates the elements of strata properties and their classifications. According to Figure 3.6 and Strata Management Handbook 2.0 (2020) by the Ministry of Housing and Local Government (Kementerian Pembangunan Kerajaan Tempatan, KPKT), the facilities and amenities that should be managed and

maintained by the JMB and MC includes leakage between levels, elevators, water tanks, and every other shared property.

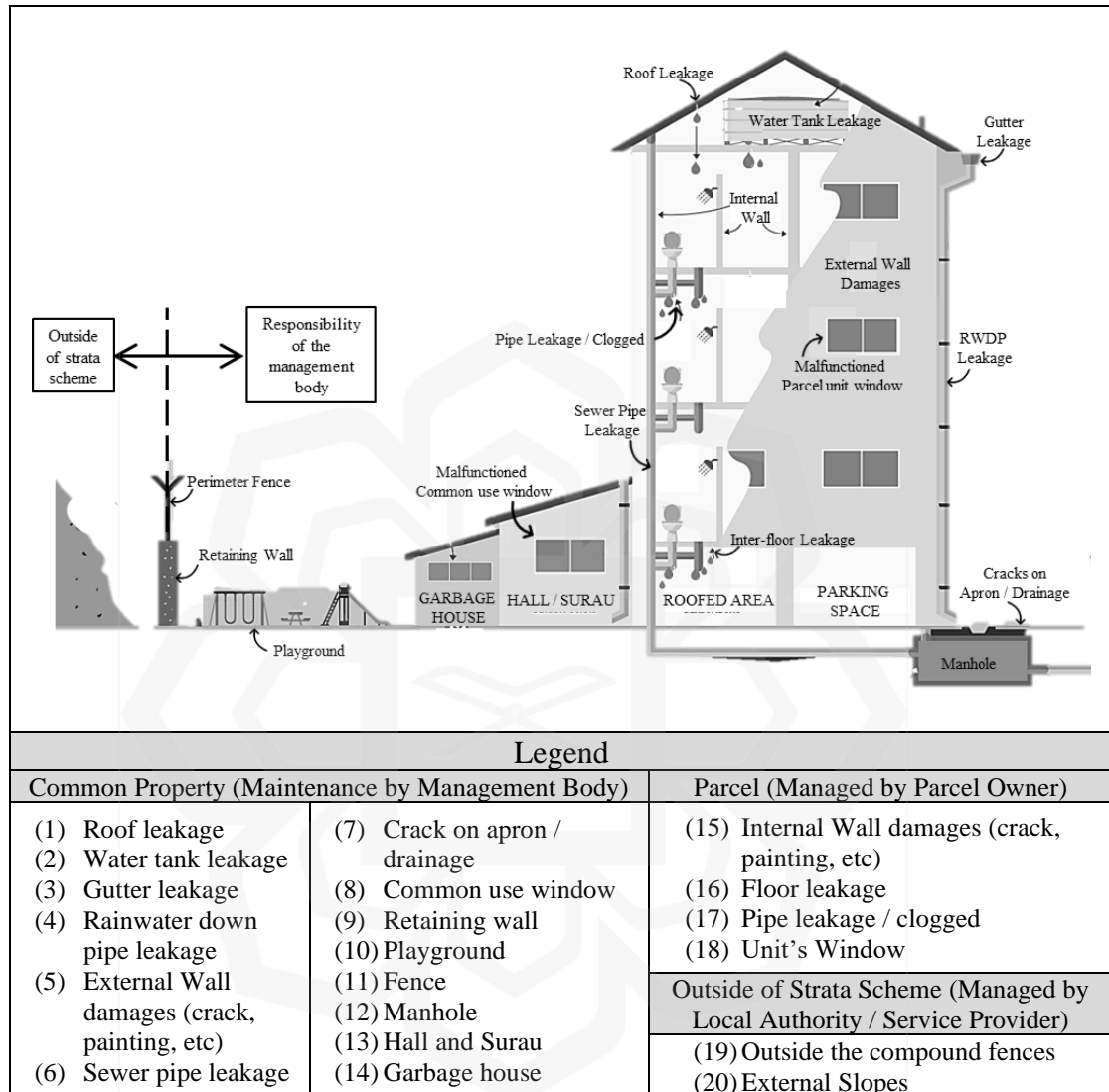


Figure 3.6 Illustrated elements of strata property according to responsible party

Source: (KPKT, 2020a)

The procedures to reporting a maintenance or repair works was also provided in the Strata Management Handbook by KPKT. The procedure involves reporting, assessment by the JMB/MC, acknowledgement of damages and finally the repair works. However, common issues involve disagreement on the damages or maintenance claims,

if such dispute occurs, the management body shall make a reference or consultation with the COB, to resolve the disagreement between both the resident and the management body. This consultation or negotiation phase may lead to a Tribunal or a mutual agreement for an actual repair works. The main goal to an efficient maintenance work is to achieve housing quality that associated with positive affect towards those living independently in the community (Evans et al., 2002).

Other issues include those related to the condition of existing facilities within strata developments. According to a study done by Noor Suzilawati et al. (2021), properties' that requires high maintenance and repair works includes items damaged due to vandalism, leakages of water tanks and pipes, damaged common spaces, roof leaking as well as the garbage house. Unduly restrictive policies can create tensions between owners since they restrict individual rights in favour of communal ones (Altmann, 2016).

3.2.3 Financial Strategy in Management

Building maintenance is a routine repair to keep the building condition and the associated services in safe condition, to ensure that the buildings are fit to use, to keep up with the statutory requirements, to maintain or improve the building's value and to maintain the overall quality of the building. Maintenance can be done either as a (El-Haram & Horner, 2002):

- i. reactive maintenance or as repair upon damage of malfunction,
- ii. preventive measure that takes into account life cycle and condition-based maintenance
- iii. upgrades or refurbishments that may include new additional works as a response to new statutory building requirements.

Considering the purpose and the amount of works required for to achieve the acceptable standard or building quality, as a result, maintenance costs are greatly associated with direct costs that comes along with the three categories of maintenance including direct costs for material, labour, and tools, as well as indirect costs such as

management cost, staffing, overhead costs to ensure fulfilment and completion of maintenance works (Jaini et al., 2022). The cost of the owner for the maintenance of common property is calculated according to the tariffs approved at the general meeting. The analysis of legislative acts allows us to conclude that management covers not only direct work, but also forecasting, planning relevant activities, making decisions, and monitoring their implementation. Given this circumstance, the doctrine of the content management of an apartment building is considered in a broad sense, with the release within the various levels (subsystems).

The fraction between the operating and maintenance costs to initial costs for buildings is a substantial aspect for the whole life cycle of building services. The best maintenance cost planning is by identifying most dominant factors and considerations as it provides necessary information for optimum maintenance planning (Ali et al., 2010). The maintenance quality is significantly related to the maintenance budget allocation. The most sort out basis for the components of maintenance cost are as proposed by El-Haram & Horner (2002), as shown in Table 3.2 that indicates breakdown of different cost aspects that are generally involved in any building maintenance.

Table 3.2 Elements of Maintenance Costs

Maintenance Cost	=	Direct Maintenance Cost (DMc)	+	Indirect Maintenance Cost (IMc)
		DMc = + Labour Cost + Material Cost + Equipment / Tool Cost		IMc = + Management and administrative cost + Overheads + Penalties / loss of revenue

Source: (El-Haram & Horner, 2002)

Identifying elements of maintenance costs that generally consist of both direct maintenance cost and indirect maintenance costs is significantly contributing to the efficient maintenance cost allocations.

Direct maintenance cost consists of cost relating to the physical maintenance works, i.e., the labour, material cost and the equipment / tool costs. Likewise, efficient allocation on indirect maintenance cost will ensure the ability to sustain efficient cash flow for the actual physical maintenance work. Indirect maintenance costs include costs to maintain professional skills that are capable to manage and administrate maintenance works. The management offices financial capacities are a reflected through the indirect cost. The management's ability to financially keep operational staffs with overheads shows the management's ability to financially manage maintenance resources under the direct maintenance costs (El-Haram & Horner, 2002; Jaini et al., 2022).

The allocation of maintenance budget has become a common argument in formulating the maintenance funding, as budget allocations are usually done per annual, so evidently any poor management of misinformation or poor execution of the maintenance works will evidently affect the annual budget, if not exceeds the budget. Studies conducted in the UK involving the building owners, local authorities and housing association have highlighted that the maintenance cost has been rapidly increasing over the year, since the early 2000. One study reported that the building maintenance has increased by 66% from the last 10 years, and another has reported that repair and maintenance work will increase by 43.6% between 1989 to the year 2001 (El-Haram & Horner, 2002).

However, based on the maintenance practices in Malaysia, the initial allocation for direct maintenance may vary at a drastic measure, in reflection of the variance of maintenance works or responses that are commonly practiced amongst property management. An efficient and well-allocated maintenance budget allocation relies significantly on the ability of the management to foresee the maintenance needs and to identify remedies that identifies the maintenance approach suitable for the relevant issues accordingly. Therefore Table 3.3 shows the summarised forms of maintenance as practiced according to related studies and reports.

Table 3.3 Existing forms of maintenance

Author	Corrective	Preventive	Predictive	Scheduled	Rehabilitate
Mohamad Idris et al. (2022)	✓	✓	✓	✓	✓
Mehmood Et Al. (2022)	✓	✓	Not mentioned	✓	✓
BRS Building Services Sdn Bhd (2020).	✓	✓	Not mentioned	✓	Not mentioned
Le et al. (2018)	✓	✓	Not mentioned	Not mentioned	Not mentioned
Md Azree (2016)	✓	✓	✓	✓	
Nepravishta Et Al. (2012)	✓	✓	Not mentioned	Not mentioned	✓

Table 3.3 shows selected studies with mentions on types of maintenance and maintenance works. The most commonly used form of maintenance is the preservation maintenance, in which according to mentions in studies, may be either in the form of corrective or preventive maintenance. Corrective maintenance by definition is a form of reactive maintenance, a response or repair made upon failure or malfunction of property. Whilst preventive maintenance includes regular surveys and inspections, which may also involve regular maintenance in effort to avoid major failures, and to conceivably prolong the lifespan (BRS Building Services Sdn Bhd, 2020). Preventive maintenance is also perceived to provide better financial framework as regular inspections allows for future budget planning or predictive maintenance (Ebekozi et al., 2022).

Predictive maintenance may come as a result of regular, or scheduled maintenance. Analysed data and recorded information during regular inspections and minor services allows management to predict and act accordingly depending on the conditions of the property or system. The result of predictive maintenance has positive impact towards rehabilitation maintenance that allows the management to plan forward on materials and cost related matters to improve or change the overall condition of the property, tools or system either through complete overhaul, renovation, upgrades and replacement works (Mohd Firdaus et al., 2022).

Where most maintenance work does not prioritize preventive and / or scheduled maintenance, as a result, the management are burdened with higher expenditure, an addition to the initial allocated budget (Ahmad Ezanee et al., 2015; Mahyuddin et al., 2018; Sivanathan et al., 2019; Wan Sumayyah Syahidah et al., 2018). Such additional expenses are avoidable when the management ahead of time identifies the issues, prioritizes maintenance, recommends feasible maintenance budgets and emphasizes routine inspections (Ebekozi et al., 2022), in other words, practices a wholesome preventive maintenance. In addition, the use of lower quality materials requires frequent maintenance, hence higher accumulated maintenance costs on the long run. Long-term management planning is a rare practice amongst the property managers in Malaysia and would usually rely on complaints (Tiun, 2006).

In practice, it is either routine or daily maintenance involving security, cleanliness and waste management. In other scenarios, reactive measures were only taken place when a problem occurs or when major failure or breaks down were reported which in common cases requires bigger budget compared to minor scheduled maintenance. An actual event where two cases of poor maintenance that causes water tank to burst which also caused paralyzed operation to the said buildings, injuries to passer-by and damages to vehicles which involves greater financial encumbrance as the case were subjected to further investigation by authorities and involvement of lawsuits (Wan Sumayyah Syahidah et al., 2018)

In response to major failure and / or deteriorating state of significant number of low-cost strata and affordable housing in the country, the Government have introduced several initiatives to ensure that the living condition of those dwelling in affordable housing are in favourable condition, through maintenance programmes for affordable housing that includes *Program Penyelenggaraan Perumahan* (PPP), and the *Program Tabung Penyelenggaraan 1Malaysia* (TP1M) (Au-Yong, Nur Farhana, et al., 2018; KPKT, 2012; PropertyGuru Editorial Team, 2020).

Management body's financial issues is also caused by poor collection of maintenance fee and low rate of sinking fund contribution by parcel owners (Abas et

al., 2021; Ashraf Wahab, 2020; Azlan Zambry, 2023; MIEA, 2020; Ummu Sholehah et al., 2020). Aside from refusal to pay the fees, the parcel owners' financial backgrounds play a huge role as well. Parcel owners that are also investors of their purchased unit would commonly have smooth cashflow and late payment are usually not the case. The same cannot be said in regards to parcel owners occupying the said units which may face financial difficulties. One of the important event that causes poor collection was the during the Covid-19 breakouts where huge percentage of working class parcel owners suffers short incomes due to the movement control orders (Azian et al., 2022). The consequences of the pandemic were also negatively affecting the management bodies, especially regarding the additional cost incurred for protection and sanitization purposes (Azlan Zambry, 2023).

3.2.4 Talent Management and Resources

The establishment of Joint Management Body (JMB) and the Management Committee (MC) before or after the Vacant Possession (VP) has a great impact towards the Developers and the home owners especially on the management and maintenance approach. The roles of a JMB/MC can be summarised into these categories; organising meetings and selections, administration and management, maintenance and damage, financial, advisory services, and enforcement of building commissioners to name a few. A quality management in these areas requires quality information gathered throughout the management period. Information or data collected for the judgment of any arising issues in relation to these categories should be done in a standardised manner, all information on the operation of the strata management should be accessible, organised and updated through and through. The information collected forms a quality database reflects the quality of the management structural stand in which should include all information from the kick off phase, operation, contract renewal until the handing over, even in the case of service termination (Jylhä & Suvanto, 2015).

Studies have also shown the different rate of psychological satisfaction amongst strata home owners. The studies looked into the security, social contact within the community, services & maintenance fees, recreational facilities, interior & exterior

appearance of home, cleanliness, and home & community as a whole (Guilding et al., 2014). In cases where most residents appeared happy or satisfied with the property's regulations, the same cannot be said for the manner of enforcement. Some which results in a harbouring of dissatisfaction or grudges over the actions of the strata managers. This has led to a general conclusion, that the relationship between the management body and the residents are a fundamental factor in determining the residents' satisfaction (Guilding et al., 2014). Any disputes concerning the management body and the residents can be a significant source of stress, which gradually will become a challenge over the long run.

The relapse of issues and complaints regarding strata management and maintenance, low expectation of service qualities, recurrence of Strata Management Act 757 enforcements taken reflects the deficiency in the overall governance of strata managements. Good quality maintenance is a product of a quality information in Facilities management. Organised inventory consists of access to material and work-in-process, any hidden problems or information may cause delay in movement of information that would increase the time and unnecessary work to reach crucial materials (Jylhä & Suvanto, 2015).

The best maintenance practices is a combination of clear maintenance rule, systematic programme, accurate assessment, updated and integrated data, all in support of maintaining a well-constructed and designed building (Wan Sumayyah Syahidah et al., 2018). Well-constructed and designed refers to buildings that were designed with consultation inputs from professional project managers that were complemented with maintenance records and built with supervision of the developer and design professional in ensuring top rated workmanship (Ahmad Ezanee et al., 2015). Whereas best practices incorporates inspections that identifies structural defects, performance of repaired works, including unscheduled inspections of structural safety (JICA Project Team, n.d.).

The inconsistency of property managements' own procedures and code of conduct practiced throughout the industry has caused complaints that were even emphasised in media especially those practising within the strata scheme management scope (Tiun, 2006). Even during the design and construction stage, the role of a property

management was side-lined that creates an after-effect post CCC and vacant possession of the strata schemes which is contradictory to which was practiced in Singapore. The roles and conducts of a property management affects the satisfaction of strata owners and residents since their skills and knowledge are an asset to maintaining the strata schemes (Sivanathan et al., 2019)

The ability to strategically plan for maintenance will also affect maintenance cost. Inclusive of not having capable staff or skills. In which many studies found that maintenance failure are closely related to poor planning, poor inspection and data analysis, the lack of maintenance guidelines and even under-qualified workforces (Oyetunji & Oluleye, 2021). The lack of guidelines and on-site inspection gives the contractors limited information to execute the maintenance and restoration works (Miller & Muhammad Shafiq, 2022).

3.2.5 Issues in Strata Maintenance

Based on the reported maintenance and poor building condition amongst the affordable housing, several studies were done towards understanding the causes of such poor quality and conducts. In 2016, Malaysia Institute of Property and Facility Managers (MIPFM) reported 70 percent of high-rise apartments and condominiums is below standard, where most property encounters consequences of mechanical, plumbing and electrical breakdowns, that affects the safety, widespread leakage and even cracks (ILKAP, 2020). Aside from poor payments that were commonly reported to cause inefficient maintenance, several studies have found other causes that leads to poor maintenance. Table 3.4 shows that many of the studies have found that maintenance issue relating to the physical condition of the building has been widely discussed amongst scholars. Followed by poor financial planning, lack of strategic management, challenges in obtaining residents' cooperation as well as staff competency.

Table 3.4 Factors affecting Quality Maintenance

Categories	Factors
Physical Condition	1. High maintenance costs
	2. Poor quality of construction and materials
	3. Poor in well-maintained lifts
	4. Cracks in walls, Poor workmanship by contractors
	5. Limited replacement parts
	6. Repaired defects were not to satisfaction
	7. Waterproofing issues, water leakage, dampness to concrete walls
	8. Building regulations
	9. Low space standards
	10. Total failure of water supply system, pipe leakage
	11. Building age
Financial Planning	12. Poor budgetary control
	13. Inflation cost of maintenance
	14. Cost of refurbishment and maintenance
Strategic Management	15. No long-term maintenance plans
	16. Health and safety regulations
	17. Lack of early planning
	18. Lack of information
	19. Insufficient legislation
	20. Ineffective management practices
	21. Delay and failure to report problems
Owners' Cooperation / Attitude	22. Residents' low concern for future maintenance
	23. Occupants' attitude
	24. Ignorance on payment of maintenance fee and sinking fund contribution
	25. House rules abuse by residents and vandalism cases
Staff Competency	26. Poor communication between management and maintenance staff
	27. Inappropriate maintenance culture
	28. Poor customer service provided by property management

Source: (Abdul-Rahman et al., 2014; Ahmad Ezanee et al., 2015; Azian et al., 2020; Farhan et al., 2019; Ihsan & Alshibani, 2018; ILKAP, 2020; Mahyuddin et al., 2018; Miller & Muhammad Shafiq, 2022; Oyetunji & Oluleye, 2021; Wahi et al., 2018; Wan Sumayyah Syahidah et al., 2018)

The physical factors in Table 3.4 shows that poor maintenance was either due to poor execution, low quality material and / or failure to meet the schedule, both increases the maintenance costs as an after affect in the long-run. 'Low quality building material' result in faulty, which may replacements and more frequent maintenance

works, hence higher maintenance expenses (Ihsan & Alshibani, 2018). Similarly, low quality material matched with poor workmanship allows room for failure in waterproofing, leakages, and frequent repairs and maintenance.

Whereas the financial causes for poor maintenance, aside from the common late payments of maintenance charges, poor budgetary control and planning as an after effect of extensive repetition of repairs has significant role in this whole maintenance failure. Even though overall inflation in material and resources is inevitable event in current economical state (Miller & Muhammad Shafiq, 2022), with regular inspection and preventive maintenance, management office should be able to avoid such financial deterrent.

Table 3.4 also shows that factors from lack of strategic management was mostly on lacking of long-term plans, poor record and data analysis as well as ineffective management conducts, which may come from failure to report or delay in taking actions. Ability for strategic management conducts is greatly correlated with the ability and skills of the resources, in other word, a managements' efficiency is a reflection of the staffs' competency.

Residents' attitude and awareness on their responsibilities were also identified as one of the most common causes of poor maintenance. Collective ignorance on responsibility to pay the maintenance charges and contributing to the sinking fund is widely discussed and referred in Tribunal cases. Vandalism and abuses of property were also one of the higher ranked maintenance issue in strata housing (Noor Suzilawati et al., 2021), severe littering and mismanaged wastes disposal have also been quite common in low-cost strata (Bernama, 2017; PropertyGuru Editorial Team, 2021). Consequently, instead of putting the resources into maintaining existing properties, the management were spending more towards repairing these abuses and cleaning up after irresponsible littering, on top of unpaid maintenance fees.

In a study done on quality living in PPR flats, aside from the design elements, building management were considered as an important factor influencing the quality of PPR living (A. T. Goh et al., 2011). Hence, unnecessary repetitive maintenance or

repairs will cause a dent in the management’s budget allocation as well as dipping in the residents’ satisfaction level in the long-run. According to Noor Suzilawati et al., (2021) in Table 3.5, there are consistencies between the reported damages and satisfaction level on strata building maintenance.

Table 3.5 RII on Maintenance Frequencies

RII for Frequency of Damages	
Vandalism	1 (0.910)
Water tank leaking	2 (0.905)
Pipes leaking or clogged	3 (0.900)
Damages to surau /hall	4 (0.890)
Roof leaks	4 (0.890)
Clogged manholes	5 (0.885)
Poor garbage houses	6 (0.875)
Clogged rainwater down pipes	7 (0.860)
Poorly maintained or damaged playgrounds	7 (0.860)
Clogged perimeter drains	8 (0.855)
Cracks in wall	8 (0.855)
Between floor/wall leaks.	9 (0.840)

Source: Noor Suzilawati et al., (2021)

The second and third most frequently reported damages within a strata scheme are the damages or defects of water tank leakage and pipe leaking ($r = 0.905$) or clogged ($r = 0.900$). Both of these issues may result in other major issues if it is not maintained periodically or damages to be remedied urgently, including risking health condition of the strata resident and tenants as well as causing further damages to the building structure. According to (Suruhanjaya Perkhidmatan Air Negara (SPAN), 2021), the water tank is required to checked on monthly basis, whilst KPKT has set under their water tank maintenance’s SOP, to have the water tank maintained every 12 months, to prevent from leaked or damaged water tank that . However, referring to the number of damages reported, it can be presumably said that the water tanks were neither checked monthly nor annually, instead maintenance or examinations were only conducted when reports or damages are filed.

Similarly, the risks that the pipe or plumbing leakage can affect the residents may be more severe and has a long-term effect. Increased in moisture and growth of mold within the concrete floor and / or walls can cause structural threat and massive health threats (ILKAP, 2020). Plumbing failure and leakages has become a common maintenance issue for buildings that has older in time (Jaini et al., 2022). This is generally due to the expected service life of the utility, waterproofing as for example has guaranteed lifespan of up to ten years only, while pipes typically have a lifespan of fifteen years, which will the leak and requires replacements (ILKAP, 2020).

3.2.6 Building Use and Owners' Attitude

Decisions made in strata management is collectively made amongst the strata owners that has their rights and responsibilities spelled out in the Strata Management Act. The owners' cooperation highly influences the management's decision (L. C. Tan et al., 2022). Abas et al. (2021) reported that (i) managing expectations of strata owners to JMB is more complex and challenging; (ii) managing bodies' difficulties in getting support from strata owners; and (iii) poorly planned future maintenance also has great influence on the maintenance cost, because in each of the owner's involvement in decision making, expectation, roles and responsibility played, the management will be able to act and respond accordingly. Managing expectations can be seen through the strata owners' / tenants' satisfaction level towards the overall maintenance and management which often hard to satisfy.

Whilst having high expectations, strata management bodies simultaneously have difficulties in receiving the support from residents, either through contribution of maintenance fee or attendance in annual general meetings (Abas et al., 2021). Owners' commitments in regards to payment and meeting has been the centre of discussion, issues relating payments and meeting attendances takes up to 80% of the strata management tribunal claims (Roznah, 2022b)

The strata owners' and tenants' expectations on the quality of building maintenance should come hand in hand with their contribution of maintenance charges

and roles played during the annual general meetings (AGM), in which a lot of the important management and maintenance decision are being made during the AGM. As well as highlighting repairs or problems on common properties by the strata owners and tenants during AGM or in any other opportunities will also impact the building maintenance cost, as this would provide necessary information for the management bodies to plan financial allocations on whether the upcoming maintenance works can either be a repair, prevention and replacement works (Jaini et al., 2022; Zawawi et al., 2016).

3.2.7 Owners' Expectation and Satisfaction

The COB evaluates the strata scheme through the management components, the concept of the star rating is when a strata scheme has the least complaints and reports filed are considered to have greater merits than those with offences and enforcements taken against, in short, the less reports made against the management body, the higher its star rating is. This however is limited to the COB's judgment and calculation.

Several studies were done in identifying satisfaction of the end users within an educational institution. The definition of "satisfactory level" varies, one study defines satisfaction as its ability to improve the institution's reputation (Hanssen & Solvoll, 2015). Hence for the purpose of achieving the research objectives, satisfaction level is defined as, the overall condition of the parcel, shared facilities or building that improves the attractiveness of the property and that it results in overall population well-being amongst the parcel owners within the strata schemes.

The type of management body or management company established to manage a strata scheme has great impact towards the owners' overall satisfaction especially in response to whether the management are capable to provide quality management and maintenance (Farhan et al., 2019). Table 3.6 is the summarised common maintenance elements that influences the owners and residents' satisfaction level:

Table 3.6 Maintenance elements affecting the residents' satisfaction level.

Categories	Elements
Building Management	<ol style="list-style-type: none"> 1. Response and downtime 2. Skill and knowledge (repair, case handling) 3. Frequency of monitoring and inspecting
Physical and Environment	<ol style="list-style-type: none"> 1. Cleanliness 2. Condition of ceiling, walls, tiles, and floor finishes 3. Condition of roofs 4. Indoor quality (humidity, lighting and ventilation)
Building Service	<ol style="list-style-type: none"> 1. Lighting in common area 2. Plumbing and piping system 3. Lift performance 4. Drainage system (sanitary, odour) 5. Fire fighting 6. Signage 7. Electrical performance

Source: (Au-Yong, Ali, et al., 2018; Sepawie et al., 2022; Sivanathan et al., 2019; Wahi et al., 2018)

Table 3.6 shows the maintenance aspects influencing satisfaction can be categorised into three, the management, the physical and environment and the services. Ability to conduct strategic management and maintenance is has significant influence over the overall condition and maintenance of the strata scheme's physical well-being, as well as the state of building services that are capable to fulfil its function in supporting the residents' daily conducts, efficiently.

Residential satisfaction is a popular research area for decades, for some it is an important component to the quality of life, in another study, satisfaction is related to the way to determine the residents' responses in the overall condition. Therefore, it is important to have a definitive satisfaction measure for better understanding on the responses made by the respondents later in the data analysis. Alternately, low-cost housing satisfaction has been a subject of research, dating way back to 1980s, ranging from areas of satisfaction on dwelling units, facilitated services in strata scheme, neighbourhood facilities, and overall strata scheme condition. For contextual purpose, further exploration in Table 3.7 shows multiple published studies is conducted to identify variables included in studies relating to satisfaction.

Table 3.7 Aspects of studies on residential satisfaction

Facilitated services	Neighbourhood facilities	Housing condition	Unit features
<ul style="list-style-type: none"> ▪ Pipe repairs ▪ Electrical ▪ House repair ▪ Garbage disposal ▪ Safety 	<ul style="list-style-type: none"> ▪ School ▪ Retail facilities ▪ Medical facilities ▪ Playground ▪ Public transport ▪ Religious facilities ▪ Lift ▪ Community Hall ▪ Nurseries ▪ Police station ▪ Fire brigade 	<ul style="list-style-type: none"> ▪ Dwelling type ▪ Building age ▪ Person to space ratio ▪ Household size ▪ Neighbourhood ▪ Location ▪ Community spirits ▪ Ventilation ▪ Noise ▪ Lighting ▪ Facilities for PWD ▪ Firefighting system 	<ul style="list-style-type: none"> ▪ No. of bedrooms, bedroom size ▪ Location / area of kitchen ▪ Quality of housing units ▪ Living area ▪ Dining room area ▪ Unit floor plan ▪ No. of power outlets ▪ Storage ▪ Sound proof ▪ Toilet space

Source: (H. Sulaiman & Yahaya, 1987) (Salleh, 2008) (Mohit et al., 2010)(Sepawie et al., 2022)(Sivanathan et al., 2019)

Satisfaction is the amount of contentment by individuals or a household collectively, relating to the current dwelling situation. Satisfaction may be influenced by demographic variables such as number of households, education, household income, and even marital status. On the other hand, a study conducted in Penang shows that one of the main factors in determining the residents' dwelling satisfaction are significantly related to the dwelling units, the educational facilities, the neighbourhood facilities. Another study on low-cost residential satisfaction in Terengganu were more inclined towards safety infrastructure, educational and health facilities aside from that of available technical services. A study done in 2019 shows that residents are more dissatisfied with the building maintenance, followed by building services and lastly the physical and environmental aspect of the low cost housing (Sivanathan et al., 2019).

Table 3.7 also mentions person to space and household size has an affect towards dwelling satisfaction. Overcrowding is defined by the ratio of person to the number of liveable rooms. Hence, rooms that has more than one person dwelling (sleep, eat and live), is considered to be overcrowding (Perreault et al., 2020). However, this is an over-simplified definition of overcrowding. Other definition also refers to the situation where too many people are present within a space.

Overcrowding is a significant study relating to PPR in which most of the residents are trapped with no exit plans (Aidila, 2023; KRI, 2023). A separate study that was done clarified that within 650 sq. ft. (square feet) by 8.2 ft. (feet) ceiling height area, the space should be able to accommodate up to 15 people (Azmi et al., 2019). The same study also concluded that the maximum 15 number of occupants is arguable as majority of the respondents agreed, in actual, 8 people should be the maximum number for a PPR unit occupancy.

3.3 BEST PRACTICES (AUSTRALIA, SINGAPORE AND HONG KONG)

The concept of Strata Management was claimed to have originated in Australia, which has been widely adopted across the globe in countries like Canada, Philippines to name a few (The Strata Collective, 2019). Each country that adopts strata management law has evolved and developed their own frameworks that are better suited for the local scenario. In the case of Malaysia, since the concept of strata management was first introduced, the strata management law has gradually evolved, amended, and improved to which in present time, Malaysia is enforcing the Strata Management Act 2013 (Act 757) & Regulations. Three countries were chosen to further identify best practices in strata law and management. The three countries chosen are Australia, Singapore and Hong Kong.

The selection of Australia's New South Wales (NSW) jurisdiction on Strata Management is mainly due to the claim that strata management concept was originated in Australia, the concept which now has been widely adopted across the globe in countries like Canada, Philippines to name a few. Each country that adopts strata

management law has evolved and developed their own frameworks that are better suited for the local scenario. In the case of Malaysia, since the time the concept of strata management was first introduced, the strata management law has gradually evolved, amended, and improved over time. Singapore was chosen as the second benchmarked country upon considering the statutory similarities in regards to the strata management. Similar to Malaysia, Singapore too referred to the Australian strata law prior to establishing strata management law that fits their landscape. As for Hong Kong, the high-rise living situation and the ageing residential buildings in the country draws similarity between Hong Kong and Malaysia. Aside from new high-rise developments, Hong Kong continues to ensure maintenance and slowing down ageing process of their high-rise residential.

Housing sector indirectly contributes to the economic development of the country through the construction activities. Therefore, the Malaysian government has always emphasized on the provision of adequate and affordable houses to be built (Shahedin, 2020).. Hong Kong and Singapore are seen to have provided housing for a substantial proportion of their population (Y. Yeung & Drakakis-Smith, 1974).

A quality strata facility provided has great effect on the quality of living for the residents. In comparison to Singapore, Australia and Hong Kong, the standard approach adopted by Malaysia has fell off way behind those countries. In Malaysia, there is no standard guideline that sets the standard of a quality management, in which as a result, each management body relies on their own self-developed guidelines and benchmarks (Tiun, 2006). Hence this section intends to further assess best practices in these selected countries, seeking what would be most relatable to the Malaysian framework that can be referred to for adaptations and future improvements.

3.3.1 NSW, Australia

Housing Development Background

The earliest high-rise strata housing in Sydney was from the 1st decade of the 20th century, which was initially built to combine both residential and professional

chambers. Post the second world war, the demand for residential units boomed, but flat or high-rise residential ownership was not favourable at the time. Today, there are more than 84,000 strata schemes in NSW and by the year 2040, 50% of the Greater Sydney's population will be strata building dwellings. The property market in NSW is one of the most sought after in Australia. The house prices in NSW have also been reported to have reached record highs in response to the increasing population growth (HtAG Analytics, 2023). This growth have lower the housing affordability in both purchasing and rental market (S. Hassan et al., 2023).

In 2017, was suggested that approximately 1.3 million Australian households were experiencing housing inadequacies. Moreover, projections indicate that this figure could potentially rise further to 1.7 million households by 2025. In this regards, it was approximated that there were 373,000 households were in need of housing support in NSW, with potential projection of 678,000 in 2025 (Teh, 2023). Australia is facing the increasing risk of homelessness, as the rate increased from 47.6 to 49.8 people per 10,000 Australian between 2011 to 2016. Compared to other states, NSW has the largest homeless issue at 37% increase. The risk of homeless ness has been aggravated by the shortage of affordable rental housing. Landlords are anticipated to increase the rental prices, aiming to cover the mortgage payments through raised rental prices. The repercussion of rental housing scarcity extends not only to local Australians but also to international student, as indicated in a study by S. Hassan et, al. (2023). The growing population calls the need to offer varieties of housing category to suit the needs and lifestyle of families, empty nesters and even the single career driven dwellers, especially where the location is most convenient and meets their lifestyle needs.

In the past year, Sydney witnessed the construction of more than 70% of new residential buildings categorized as medium or high density. The growing preference for strata title ownership has been due to several factors, including the conversion of previously single-owned buildings into strata titles, new development projects, and government policies aimed at encouraging vertical growth within existing urban areas. The increasing significance of strata development is underscored by the fact that it is estimated to encompass over \$AUD350 billion worth of property management in NSW alone, with a population of 1.12 million people residing in strata title schemes. Notably,

15% of the entire NSW population now calls apartments, villas, units, or townhouses their home (Lindsey, 2020).

Initially, low-cost strata housing initiatives primarily aimed to cater to first-time buyers and individuals with limited income seeking affordable homeownership solutions in urban settings. Historically, these developments encountered hurdles such as substandard construction practices, restricted access to amenities, and poorly maintained communal spaces. In New South Wales (NSW), Australia, the development process and regulatory framework for low-cost strata housing are governed by a series of legislative enactments and planning policies. Notably, the State Environmental Planning Policy (Affordable Rental Housing) 2009 (SEPP ARH) is designed to expedite the planning process and incentivize developers to deliver affordable rental and low-cost housing projects, including strata developments. The NSW Affordable Housing Ministerial Guideline outlines the legislative and policy framework for affordable housing delivery, crafted with input from the NSW Government and supported by regulations such as the State Environmental Planning Policy (Housing) 2021 and section 80 of the Environmental Planning and Assessment Amendment (Housing) Regulation 2021 (NSW) (NSW Government, 2023b). According to a 2013 report, approximately 30%–40% of public housing in NSW had deteriorated below the state government's acceptable condition standard (Pawson et al., 2019)

Strata Laws and Regulations

Strata management in Australia is a concept derived from an Australian Law by the name of “strata title”. It is a concept that applies to the management and administration of common lot and property ownership within a complex stratum building. The Australian strata law was first introduced in 1948. The concept later develops and followed by several other countries with a twist of their own to fit each country's culture, and lifestyle. Strata Law was originally introduced in NSW in 1961 and has gone through series of legislative reforms over the decades. Prior to the current strata legislation, Strata Schemes Management Act 2015 No.50 (NSW), NSW strata schemes were governed by the following legislations (Angus, 2015):

1. Strata Schemes (Freehold Development) Act 1973 and the Strata Schemes (Leasehold Development) Act 1986: Administrates the initial subdivision and subsequent sales of freehold and leasehold land respectively.
2. Strata Schemes Management Act 1966 (NSW): Strata scheme management Regulation and dispute resolution
3. Property, Stock and Business Agents Act 2002 (NSW): Strata or community managing agents and residential property managers' control mechanism

The state of the original Strata Scheme Management Act 1996 (NSW) calls for major overhaul. The Act 1996 was introduced aiming for rights balance between (owners) corporation and individual owners, the freedom to manage the property. Between the year 2011 and 2012, the NSW Government hosted consultation process to address issues relating to the existing legislation, and the conclusion was (Angus, 2015); the (then) existing law was design with “one-size-fits-all” approach, despite the vast difference in risk and circumstances between smaller schemes and larger schemes of more than 100 lots. Though this approach was education-friendly, in practice, it was concluded to be too rigid. This scene is relatable to the current scenario is Malaysia where strata developments have become more complex and may no longer rely on the existing share unit factor weightage or interpretation in identifying parcels and / or common properties.

The original strata law and relevant strata and community laws spreads across separate 5 Acts and 5 associated Regulations increase the risks for unintentional breaches of the law, as it is a posing challenge that not many people would have the knowledge to comprehend all related provisions and to go through the trouble to seek advice prior to any actions and / or decision made. The strata law consultation conducted by the NSW Government concluded in July 2015 where two drafts were release proposing reforms of the strata law through the Strata Schemes Development Bill 2015 and Strata Schemes Management Bill 2015. The new reform is the improved and modernised strata management (Angus, 2015), should be able to account for varies strata scheme size and complexity, while improving awareness on rights and

responsibilities, to support democratic course, improve participation and communication.

There is however an issue in regards to dispute resolution that continues to be a challenge for partially-strata developments, especially when conflicts arise between an owners corporation and other members of the building management committee. It's important to note that not all members of the building management committee are obligated to adhere to the provisions outlined in the Management Act (NSW Government, 2021). Consequently, disputes concerning strata management statements can give rise to significant contractual complexities. This is why the Supreme Court is often deemed the most suitable forum for addressing disputes related to a strata management statement. However, it is worth mentioning that the legislation doesn't provide the Court with a clearly defined set of powers, and there remains uncertainty regarding whether the Court has the authority to modify a strata management statement (NSW Government, 2021)

Similarly, to Malaysia's Strata Management Act 757, the Strata Schemes Management Act 2015 No 50 allows each lot owner the rights to vote, such decision contributes to the overall well-being of the strata scheme. Equally, the strata owners have the responsibilities in performing necessary contributions, as stated in the Strata Scheme Management Act, section 68, as means to upkeep the costs in maintaining the common property of the strata property.

Previously in Australia, the application of Company Title prevails over individual strata title. The reason being, individual strata title is deemed to have higher loan risks and interest rates. Company title, as its name suggests, does not confer separate ownership to individual parcel, which makes it difficult for real estate to market (Stratacare Australia, 2022). Later on, the Conveyancing (Strata Titles) Act 1961 came into force and parcel lots of new strata developments now have individual titles, enabling the parcel lots to be offered for dealings in the open market i.e., sale and purchase and rentals. Since its introduction in 1961, Malaysia is one of the countries that that have adopted these individual strata title along with India, Indonesia, Singapore and many others.

One major difference between the NSW and Malaysian strata management act is in regards to the establishment of the owners corporation (NSW) or the management corporation (Malaysia). While Malaysia imposes the minimum strata title transfer of 25% share unit aggregates as precedent to the MC's establishment, the NSW law enforcers the number of sold units instead of the share aggregate. The owner corporation shall be established when the number of sold units reaches the minimum one third from the total number of developed units (NSW Government, 2023a). The number of sold units approach suggests a better light and simpler approach towards the establishment of the management body compared to share unit aggregates that are causing uproar involving provisional blocks, establishment of the sub-MC (Natalie Khoo, 2018) and becoming inequitable to the current trend of strata development in Malaysia (Poh, 2019).

Maintenance Fee and Issues

While Malaysia relies on the share unit aggregates to determine the maintenance fee, there were no provisions under the NSW's Strata Scheme Management Act that controls the amount nor method in determining the maintenance contribution amount that are chargeable by the strata management. Instead, it was stated that individual contribution costs may be higher if the insurance costs are higher with the consent of the owners. In consideration of other admin fees that may be charged, it is important for the owners to clarify the complete list of potential fees or charges prior to the appointment of the property manager. There are three main types of property management fees in Australia, in Table 3.8, which are the letting fees, management fees and the admin fees (Local Agency Co., 2020):

Table 3.8 Common types of property management fees in Australia

	Letting Fee	Management Fee	Admin Fee
Definition	Fees in finding new tenants and the setting up of new lease	Fees charged to cover the costs of maintaining the lease	Other ad-hoc management fees may incur.

	Letting Fee	Management Fee	Admin Fee
Coverage	1. Marketing plan 2. Responding enquiries 3. Conducting inspections 4. Reviewing applications 5. Managing necessary documentation	1. Collecting rent 2. Following up on late payments 3. Conducting inspections 4. Tenant-Owner liaising 5. Bill payments 6. And other necessary tasks	1. Administrating account 2. Tribunal hearings 3. Annual statement fees 4. Inspections fees 5. And others

Source: (Local Agency Co., 2020; Which Real Estate Agent, 2023)

There are two commonly used maintenance fee models applied in Australia, which are the percentage-based and the flat-fee model (Which Real Estate Agent, 2023). There are two fees that are suits the application of the percentage-based model, which are the letting fee and the management fee. Using this model, the contribution of management fee is done based on the percentage of the weekly rent. A weekly rent is the rent collection payable by the tenants on weekly basis, as of March 2019, the median rent in NSW was AUD 340 and AUD 520 in Sydney. In NSW per say, the percentage may vary between 5% to 12%, and this percentage may be lower or higher according to the property style, its location and the rental range.

As for the annual management fee approach, it is the amount of management fee throughout the year. For example, for a rental of median rent of AUD520, a week, the annual management fee would accumulate between AUD1,400 to AUD2,300 annually. Meanwhile, the total annual fee is the total fee of the entire year, inclusive of the management fees, letting fees and any other fees applicable. This annual total is the assumption that the tenant will be staying for a longer term, probably number of years.

Whereas the flat-free method is a method in which the fee is not determined according to the rental rates, instead a single amount charged individually (Frenken, 2017). Since this approach is not influenced by the rental rates, similarly, it is not according to the property size. The amount is as the name suggests, a flat percentage are charged equally for all property types and sizes.

In various reports and written discussions concerning strata management fees in NSW, the terms "levy" or "contribution" are commonly employed (NSW Government, 2023c). These amounts are established during the annual general meeting (AGM) and are deposited into designated funds. As is the case in strata management systems across the world, these funds are earmarked for the day-to-day administration of the property. In instances where a dispute arises regarding these levies between the owners corporation and a lot owner, either party has the option to seek advice from NSW Fair Trading. The owners corporation is obligated to provide a written notice of the intended action, allowing at least 21 days for notification. In such situations, the owners corporation might also be instructed to cover reasonable costs incurred in their efforts to recover the unpaid levies (NSW Government, 2023c). However, it's important to note that the recovery of reasonable costs can only be authorized by the NSW Civil and Administrative Tribunal or a court order.

The management fee contribution is part of the owners' responsibilities under the act, that is the obligation to maintain and to repair the common property. This is an obligation that were commonly overlooked by owners corporation. Warwick van Ede, JS Mueller & Co Lawyers (2019) reported that, very often the owners corporation are only aware of damages when unit owners reported as such. At this stage, the owners corporation has already been considered to have breached their obligation under the Section 106 of the Act, and are obliged to take necessary remedial actions.

There are instances which despite the owners corporation taking the first action to repair the reported damages or failure of the common property, procurement issue the like of engaging a contractor is a common challenge faced by the owners corporation. For such instances, within the context of NSW, the owners corporation are allowed to seek assistance from their respective your local state emergency service, which is in accordance to the new Legislation called the Design and Building Practitioners Act 2020 commenced in July 2021 (The LookUpStrata Team, 2023).

The management fee, similar to the Malaysia practice, is the ongoing management cost paid to the property management. However, in case where the owner

fails to pay the strata levy it can be recovered through these methods (Singh & Benson, 2021):

- i. Legislation allows owners corporation to recover unpaid levies after one month, along with interest and recovery expenses. Strata manager handles unpaid levies, costs charged to owner's lot statement. Owners Corporation may appoint debt collection lawyer at AGM.
- ii. Garnishee Order: Court order requires entity (e.g., bank or employer) to pay money from debtor's bank account or wages to Owners Corporation.
- iii. Writ for Levy of Property: Court order authorizes sheriff to seize and sell debtor's assets to repay debt.
- iv. Bankruptcy Notice: Alerts individual debtor that bankruptcy proceedings may follow if debt remains unpaid.
- v. Creditor's Statutory Demand: Alerts company debtor that winding up proceedings may follow if debt remains unpaid.

Whereas, in regards to the commonly shared facilities in a mixed-used developments, where facilities are utilized by owners of other sections of the building, the legislation does not expressly allocate responsibility for the upkeep and repair of these shared amenities (NSW Government, 2021). Instead, it mandates that the management statement must ensure equitable distribution of expenses linked to these shared facilities among the various parts of the building. Additionally, it must outline the methodology employed to divide the costs associated with these shared expenses.

Owners' Attitude

Commonly raised issues in strata properties include noise and antisocial behaviour, such as loud music, smoking, door slamming, and aggressive conduct, involving both tenants and owners. However, owners often face challenges in holding tenants accountable due to legal constraints (SCA, 2012). These issues compound the three most common problems faced by strata properties: ineffective communication, financial mismanagement, and disputes over by-laws. Ineffective communication exacerbates misunderstandings, while financial mismanagement can lead to financial instability and hinder maintenance efforts. Disputes over by-laws, spanning issues like noise, pets, and

property alterations, often escalate without adequate resolution mechanism (Raff, 2017). Addressing these challenges requires strategies such as establishing clear reporting protocols for maintenance disputes, implementing mediation for noise complaints, ensuring consistent enforcement and education regarding by-law violations, promoting transparent budgeting and financial reporting practices, and fostering clear communication and adherence to strata laws for resolving disputes (PICA Group, 2019).

These issues has also impair negative perception of low-cost housing as a social dumping ground, hampering its growth potential and intensifying community resistance (Atkinson & Jacobs, 2008). The media, in particular, plays a significant role in perpetuating stigmas associated with certain suburbs and their residents, contributing to a negative portrayal of these communities. Despite previous oversight, governments are increasingly acknowledging the importance of fostering community within strata communities, which is expected to positively impact the resolution of problems within these schemes. There are indications of government recognition of the role of owners corporations in creating and maintaining a harmonious living or working environment (Bugdeni, 2007)

3.3.2 Singapore

Housing Development Background

Back in 2003, there were only 2,700 strata titles in Singapore which comprises of residential apartment and condominium property, simple mixed property (comprising of simple shops with residential units), industrial property, commercial property and complex mixed development (comprising of shopping, offices with residential and / or shopping with hotel and service apartments) (Christudason, 2004).

There are mainly four main types of dwellings in Singapore, namely Housing & Development Board (HDB) flats, condominium, apartments, landed properties and other dwellings (*Singapore Household Statistics*, 2022). The data set in Figure 3.7 shows that the number of household dwellings in HDB flats, condominium and apartments makes up to more than 50% from the overall housing in Singapore. There

are several modules to HDB flats in the country, which are, HDB flats with either 1 room, 2 rooms, 3 rooms, 4 rooms, 5 rooms as well as Executive HDB flats, all which summed up to 78% of the overall dwellings in Singapore.

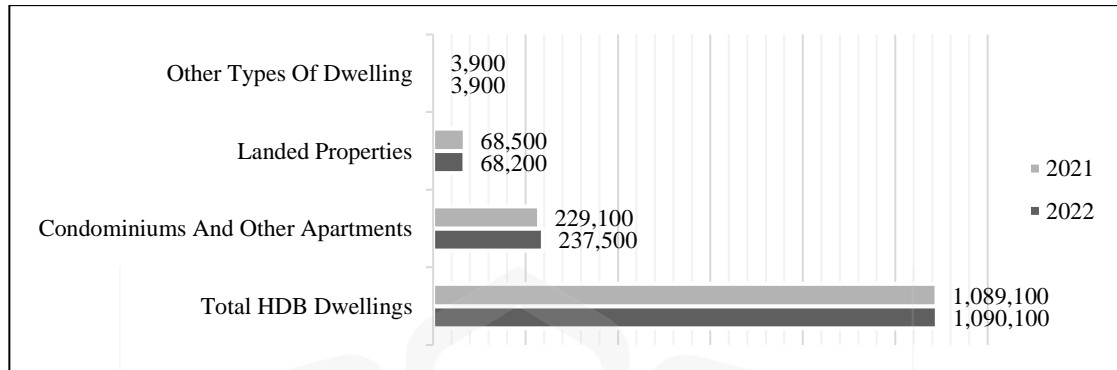


Figure 3.7 Household's type of dwellings in Singapore

Source: (*Singapore Household Statistics, 2022*)

Even though the change in percentage was not glaring, the overall comparison between high-rise residential buildings against landed properties are one of the most significant reasons for choosing Singapore as a case study in strata management. Putting aside the HDB flats, the following data set shows a brief private residential property trend between landed and non-landed property in Singapore between the year 2017 until 2022. The number of private non-landed residential stocks are on the average is 60% to 67% higher than the number of stock units of the private landed residential property.

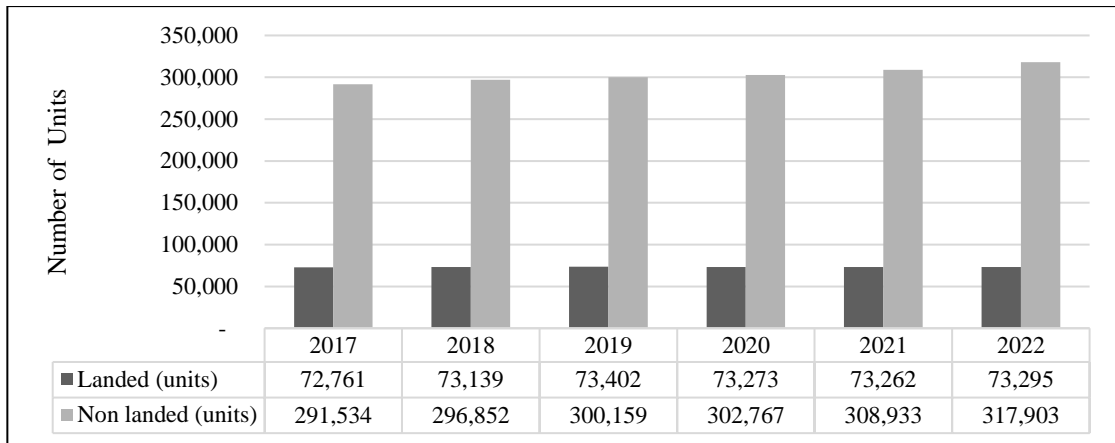


Figure 3.8 Number private residential stocks in Singapore in 2017-2022

Source: (Singapore Department of Statistics, 2022)

Despite the reported numbers, concerns on access to housing affordability and the struggle in securing a Build-to-Order (BTO) flat were among several issues raised at the Ministry of National Development's (MND) (C. Goh, 2022). Not to mention the soaring rental prices in Singapore that is the fastest to spike in the world. This is now has become a political issue, as the public questions the governments' effort in solving access to affordable housing especially on Singapore's subsidized housing program(Heijmans & Ong, 2023). The scarce of vacant land in Singapore makes it feasible to focus on the development of stratified properties. This goes hand in hand with the need for a well thought strata development and strata management laws.

Singapore's strategy for providing affordable housing revolves around the regulation of HDB flats, with a particular focus on the construction of Built-to-Order (BTO) flats. The construction process of BTO flats prompts discussions regarding the variations in waiting times for applicants. This variance is attributed to the role of the HDB in overseeing the planning, design, and construction of these flats to meet housing demand. Furthermore, several studies delve into the complexities of managing demand and location preferences, shedding light on the factors contributing to the differences in waiting times for BTO applicants. The emphasis on the HDB and BTO flats underscores the government's proactive approach to addressing housing challenges and ensuring the provision of quality and affordable housing for its citizens (Ainin, 2023; M. Ng, 2023).

Strata Laws and Regulations

Strata living making up more than 50% of dwelling form in Singapore strives for advanced development on strata property management, especially considering, a huge chunk of the strata properties are of public HDB flats rather than private residential high-rise.

Public strata housing units' ownership are in accordance to the criteria decided by the HDB, and the ownership are commonly in the form of leasehold with tenure ship of 99 years. Leased public housing are governed under the Land Titles Act and Town Council Act. Despite the leasing status, the tenants are responsible to maintain their individual units, while the Town Council is responsible for the maintenance of the common properties (Guan, 2017).

As for the private developments with common properties, the residents and / or tenants are responsible to upkeep the common properties (i.e., parking lots, lifts and other ancillary facilities within their schemes). Maintenance and management of strata properties in Singapore are governed by:

- i. Land Title (Strata) Act (LTSA)
- ii. Building Maintenance and Strata Management Act 2004 (BMSMA)

The Land Titles (Strata) Act or the LTSA was enacted in 1967 was initially based on the Australia' NSW Conveyancing (Strata Titles) Act of 1961 (Christudason, 2004).

Each purchaser will be liable to take into account and be responsible on matters like the Share unit value, Duties of Developers, Establishment of Management Corporation, Maintenance and Sinking Fund, Managing Agents, use of common property, insurance, dispute resolution, strata title board and to name a few. In order to upkeep the common properties, contribution to the maintenance and sinking fund is crucial. The collection of the maintenance fee may differ between HDB properties and private condominiums. The monthly fee for HDB flats is under the jurisdiction of the Town Council, whereas the fees for private condominiums are determined by the property management.

The concept of share values of strata housing in Singapore is similar to the one enforced in Malaysia as it is used to determine the owner share of common property, to determine the amount of maintenance fund for each strata owner, as well as representing the voting rights of the unit owner (Guan, 2017). The share value for residential properties is calculated based value allotted per floor area, while for mixed-use developments, the calculation applies different weight factor to represent the different access and use of common properties for different user groups (Guan, 2017). This is done differently to Malaysia where the strata management act has yet to take into account different approaches to differentiate the share unit formula between residential strata and the mixed-use or commercial strata development. Though discussions surrounding the needs to amend this aspect of share unit calculation, to be more equitable have become more significant as Malaysia's strata development becomes more complex overtime (Poh, 2019; F. H. A. Wong, 2019).

Maintenance Fee and Issues

There are two forms of management that oversees the management and maintenance of flats and condominiums in Singapore, particularly between the HDB flats and the private condominiums and apartments. The HDB flats, the owners / tenants are required to pay maintenance charges to the Town Council, while maintenance for private high-rise properties are maintained by respective property managements.

For private or executive condominiums, normal rates, the conservancy charges may range between 300 Singapore Dollar up to 1,000 Singapore Dollar(SGD) (Ready Home, 2020). These fees are commonly influenced by the number of people in the condominium, the size of the property, location, the type of condominium (luxury condominiums) and the facilities provided in the schemes (J. Wong, 2022). The main determining factor for maintenance charges is the size of the property (gross floor area, GFA) as it would be reflected on the unit's assigned share value. The assigned share value is according to the approval of the Commissioner of Buildings, as proposed by the developer. For residential properties the share value is grouped according to floor area and value increases by one for every 50m² of the floor area.

The share value will then be multiplied with the maintenance fee per share value, in Singapore would commonly range between Singapore \$75 to \$80 per share value, depending on the property management. Hence the amount due for monthly maintenance shall be as the following example of \$80 per share value, Table 3.9:

Table 3.9 Example of monthly maintenance charge based on \$80 per share value

Unit Size (m²)	Share Value	Monthly Maintenance (SGD)
50 m ² and below	5	\$400.00
51 – 100 m ²	6	\$480.00
101 – 150 m ²	7	\$560.00
151 – 200 m ²	8	\$640.00
201 – 250 m ²	9	\$720.00
251 – 300 m ²	10	\$800.00

Source: (Building and Construction Authority, 2005; Ong, 2021; J. Wong, 2022)

On the other hand, since manage and maintenance of HDB flats are fulfilled by the Town Council, the collection for the maintenance charges is also under the Town Councils' jurisdiction and decision. More accurately, the term used in Singapore is known as the Service & Conservancy Charges (S&CC), similar by definition which is the source of fund to manage, maintain and improve the state of common property. However, magnitude of the expectation and responsibility to handle maintenance matters has become significantly more difficult considering increasing cost and additional features of newer properties that may not have economic value to the such services (K. G. Ng, 2022).

There are two rates for S&CC, one, is the reduced or the subsidised rate and the second is the normal rate. The subsidised rate are commonly applicable to those dwelling within the HDB flats, which on the average contributes SGD100 or less, on monthly basis, where S&CC of HDB flats may differ according to authority areas governed by respective Town Council (Khoo, 2022) as well as the type of HDB unit

one occupier, refer Table 3.10 for examples of S&CC rates for Ang Mo Kio Town Council and the West Coast Town Council:

Table 3.10 Examples of S&CC Normal Rates according to Town Councils (SGD)

HDB Flat Type	Ang Mo Kio Town Council	West Coast Town Council
1-room flat	\$55.50	\$54.70
2-room flat	\$59.00	\$56.20
3-room flat	67.00	\$63.50
4-room flat	\$72.50	\$72.00
4-room Design & Build or Design Plus flat	\$77.00	N/A
4-room Design & Build and Sell Scheme flat	\$82.00	N/A
5-room flat	\$85.00	\$85.00
5-room Design & Build or Design Plus flat	\$89.00	N/A
5-room Design & Build and Sell Scheme flat	\$90.00	N/A
Executive apartment	\$100.00	\$101.00
Executive Design & Build and Sell Scheme flat	\$102.00	N/A

Source: (PropertyGuru Editorial Team, 2022; West Coast Town Council, 2023)

The S&CC should cover the maintenance of these common properties, but not limited to the common grounds, lobbies, landscape works, swimming pools, tennis or multi-purpose courts, lifts, garbage collection, sewage system and other exterior works. However, the Building and Construction Authority (BCA) reported that disputes are quite common especially in relation matters like damages due to boundary, nuisance, water leakage or inter-floor leakages, defects. The BCA has also highlighted that the most common management issues within a strata titled developments include: (i) performance or failure to perform certain duties under the BMSMA or by-laws, (ii) applications to convene meetings or invalidate resolutions passed by the management corporations, (iii) woes over parking lot, (iv) complaints over alterations of common property, (v) actions to revoke certain by-laws, to name a few (Building and Construction Authority, 2019).

Considering the issues and the maintenance works required, increasing the service and conservancy charges has also taken place over time, an increase which took place in April 1st 2014 (Lian, 2014), since the last increment in 2008. Later in 2017, another increase would take place in June 2017 was announced for 15 town councils. The increase in conservatory rates was justified to keep up with the rising costs as well as to allow the town councils to build up the sinking funds(CHIN, 2017). Despite the increase in the conservancy rates, the Singaporean's Government has initiated S&CC rebate schemes, as it was announced in Budget 2022 and implemented in April, July and October of 2022 as well as in January 2023 (PropertyGuru Editorial Team, 2022).

Several reports and online discussions reiterate on the importance of dismissing their service charge payment, though it is not uncommon. There are many ways for the management may take to recover the shortfall of the maintenance fund that were caused by defaulters of the S&CC which includes (Virginia Tanggono, 2021):

- i. Charged with interest and with serve of lawyer's letter.
- ii. Defaulter may be fined up to Singapore \$10,000.
- iii. The management may take the matters to the Tribunal or Courts
- iv. Property may be put on sale (auction) with passing of special prerequisites.

Above these legal methods that are permissible for the management to take action on, a more informal method to recover the due service charge is by displaying the list of defaulters and the owed amount details. Though this act of displaying defaulters' names did happen 10 years ago, these days, it has very low chance of happening in consideration to enforcement of the Personal Data Protection regulation (Virginia Tanggono, 2021). In a more recent reported case is on how a defaulter, was held in the police lock-up due to the accumulated 18 months of unpaid S&CC since April 2018, amounting to Singapore \$2,150 (Rajah, 2020) after failure to attend to a Court hearing for the defaulter's arrears.

The strata management too find that the procedures to apprehending S&CC defaulters are meticulous, but there is a need to do so in order to recover the maintenance costs shortfalls. As for leased HDB housing that are maintained and managed by the town councils. Even though the maintenance costs are subsidized, varying according to

the flat size, between only 5% to 12%, depending on the 1 to 3 room flats or the executive condominium (Lye, 2020). The low subsidies is still considered low and is considered to be a misplacement of incentives to further impose the increasing maintenance costs onto the town councils (K. G. Ng, 2022)

In Singapore, the property manager plays a role in determining the management fees and procedures even during the planning stage, which they will commonly be invited by Developer to provide necessary opinions especially in deciding the fees to the house buyers, as well as the type of maintenance needed. However, the same practice cannot be said for Malaysia, which the role of a property managers are pushed to the side-lines for majority of the planning stages (Tiun, 2006).

Aside from the progressive maintenance planning by the property managers, the government of Singapore have also introduced a long-term renewal policies for public housing, such as Lift Upgrading Programme (LUP), and the Home Improvement Programme (HIP) to name a few (Ahmad Ezanee et al., 2015). Compared to Malaysia where there is no actual guideline on whether it is acceptable to revise the maintenance fee, concurrently increase the sinking fund. There was certainly no in-depth discussion on policy making in including building appraisal of aging strata housing a compulsory procedure to revise or increase the sinking fund as practiced in Singapore, only until a recent study by Khazanah Research Institute (2023) that thrusts for building condition survey to be used as a monitoring tool in delivering decent to good quality housing for both private and public housing.

Owners' Attitude

Vandalism is a prevalent concern discussed in the first article, where penalties for damaging property are outlined. This includes fines, imprisonment, caning, or a combination of these punishments, depending on the severity of the offense. Despite strict laws and penalties, vandalism continues to be a problem in Singapore, affecting public and private properties alike. the issue of throwing objects from buildings and dangerously positioned objects. Such actions pose significant safety risks to pedestrians and property occupants and can result in serious injuries or damage to property. Despite

existing laws and regulations prohibiting these actions, instances of objects being thrown from buildings or dangerously positioned objects remain a concern for public safety and property maintenance (Aljunied-Hougang Town Council, 2013; Singapore Legal Advice, 2020).

While other articles highlighted on common issues related to cleanliness and cluttering in public spaces, particularly within HDB estates in Singapore. One prevalent concern highlighted is the accumulation of clutter and debris in common areas within HDB estates, which poses safety hazards and affects the quality of life for residents (Ministry of National Development, 2012; A. Tang, 2019). Despite efforts by town councils and residents to address the problem through regular cleaning and enforcement measures, the issue persists due to various factors such as inadequate waste management infrastructure and irresponsible behaviour by residents and visitors (Ang, 2022; L. Tang, 2015). This ongoing challenge underscores the need for comprehensive strategies involving education, enforcement, and community engagement to promote cleanliness and responsible behaviour in shared spaces (Ministry of National Development, 2012; A. Tang, 2019). Additionally, the detrimental impact of clutter and littering on public accessible amenities, emphasizing the urgency for stronger measures to deter littering and promote civic responsibility.

3.3.3 Hong Kong

Housing Development Background

Generally, in Hong Kong, there are nine popular housing types, which are, high-rise, low to mid-rise, duplexes, needle towers, walk-ups, town houses, village houses, and luxury houses. The general specifications of these popular type of housing are:

Table 3.11 Typical housing types in Hong Kong

Type	Typical Size
High-rise	900 square feet, 3 bedrooms
Low to medium rise	1,000 square feet, 3 bedrooms

Type	Typical Size
Duplexes	3,000 square feet, 4-5 bedrooms
Needle towers	300 square feet (studio) / 1,000 square feet (3 bedrooms)
Walk-ups	300 square feet (studio) / 500 square feet (2 bedrooms)
Town houses	2,000 square feet, 3-4 bedrooms
Village houses	2,100 square feet, 3-4 bedrooms
Luxury houses	3,000 square feet, 4 bedrooms

Source: (Expats Living, 2022)

Amongst the typical housing types, the housing sector in Hong Kong can also be further categorised into, public rentals, subsidised flats, by the Hong Kong Housing Authority (HKHA) and / or Hong Kong Housing Society (HKHS) as well as housing by private sectors. These categories of housing are defined as follows:

Table 3.12 Categories of housing in Hong Kong

Category	Examples
<p><u>Public rental housing units</u> Public rental housing units include PRH of the HKHA as well as the rental estate flats and rural public housing flats of the HKHS.</p>	<p>i) public rental housing (PRH) flats ii) Interim Housing (IH) flats by HKHA iii) Rental flats and Senior Citizen Residences Scheme (SEN) flats for HKHS</p>
<p><u>Subsidised sale flats</u> Subsidised sale flats are inclusive of flats built under:</p> <p>i) Scheme of Hong Kong Housing Authority (HKHA)</p> <p>ii) Flats Projects of Hong Kong Housing Society (HKHS)</p> <p>iii) Urban Renewal Authority (URA) (e.g., “Starter Homes” Pilot Project for Hong Kong Residents).</p>	<p><u>Schemes under HKHA:</u></p> <p>i) Tenants Purchase Scheme (TPS) ii) Home Ownership Scheme (HOS), iii) Private Sector Participation Scheme (PSPS), iv) Middle Income Housing Scheme (MIHS), v) Buy or Rent Option Scheme (BRO) vi) Mortgage Subsidy Scheme (MSS) vii) Green Form Subsidised Home Ownership Scheme (GSH);</p> <p><u>Schemes under HKHS:</u></p> <p>i) Flat-For-Sale Scheme (FFSS) ii) Sandwich Class Housing Scheme (SCHS) iii) Subsidised Sale Flats Projects (SSFP)</p> <p><u>Schemes under URA:</u> HOS/ PSPS/ MIHS/ BRO/ MSS/ GSH/ TPS/ FFSS/ SCHS/ SSFP flats that can be traded in the Open Market (i.e., flats sold prior to HOS Phase 3B or flats with premium paid) are classified as private</p>

Category	Examples
	permanent housing and are excluded from subsidized sale flats
<p><u>Private permanent quarters</u> Private quarters are properties intended for residential purpose, inclusive of units in commercial and industrial buildings and units that can be traded in the open market.</p>	<ul style="list-style-type: none"> i) Private housing blocks; ii) Urban Improvement Scheme (UIS) by HKHS iii) Villas/bungalows/modern village houses; iv) Simple stone structures/traditional village houses; v) HOS/ PSPS/ MIHS/ BRO/ MSS/ GSH/ TPS/ FFSS/ SCHS/ SSFP flats that can be traded in the Open Market.

Source: (Census and Statistics Department, 2023)

By definition, majority of the properties in Hong Kong are flats or blocks, thus further into understanding the housing scene in Hong Kong, the following shows the recent number of units according to housing categories. Excluding the private permanent quarters, Table 3.13 shows that the number of flat units under the public rental flats and subsidised sale flats are consuming up to 43%. In consideration that the third housing category, private quarters are inclusive of private housing blocks and varies types of flats, the total percentage of high-rise residential, is undoubtedly beyond 50% of the overall housing supply in Hong Kong.

Table 3.13 Hong Kong property overview in 2020 to 2021

Categories of housing	2020	2021
Public rental housing units:	837,000 (29%)	842,000 (28%)
Subsidised sale flats:	429,000 (15%)	435,000 (15%)
Private permanent quarters:	1,658,000 (57%)	1,682,000 (57%)
TOTAL	2,924,000	2,960,000
<i>*Newly completed units as of September 2022</i>		

Source: (Census & Statistics Department, 2022)

The housing scene in Hong Kong from the house price aspects has also been affected by the growth and developments of high-rise residential as the property prices

in Hong Kong are greatly influenced by the quality of property management. Quality by definition is the involvement of the Mutual Aid Committees and Owners' Committees (OC), Incorporation of Owners (IO), and / or the property management company (PMC) (Wadu Mesthrige, 2021). The involvement of management bodies in Hong Kong properties are extremely valuable mainly because committing to maintaining or participating in maintenance of the common properties are considered voluntary, as most high-rise residential buildings are held in co-ownership (Yau, 2011). Hence, regulating the property maintenance is particularly different from the usual strata title ownership in Malaysia.

While the statistic shows the increasing number of housing units in Hong Kong and continues to rise especially high-rise properties, i.e., flats. The demand for high-rise housing, has consequential affect towards the need for property management to sustain the building quality. Furthermore, the residential properties in Hong Kong has reportedly gone through series of waves over the decades (Abidoeye et al., 2019), in which the property prices to be influenced by the quality of property management services (Wadu Mesthrige, 2021).

Beyond the maintained and managed high-rise properties and with scarcity in public housing, the lower income group deals with poor living condition in tiny apartments and rooftop huts (P. Yeung, 2022). House prices in the country has risen by 187% over the last decade where in May 2022, the application for public housing hits all time high of 245,000 with an average waiting time of 6.1 years. Hence, many resulted to cheaper transitional homes the likes of rooftop huts and the infamous "coffin homes" which is an extremely subdivided units, utilizing its maximum living space just enough to fit a bed (P. Yeung, 2022)

The government of Hong Kong has implemented various measures to tackle housing affordability challenges, such as increasing land supply, enhancing public housing provisions, and promoting affordable housing development (Quail et al., 2023). Efforts have been made to streamline planning and approval processes to accelerate housing construction projects. Notably, the Hong Kong Housing Society (HKHS) collaborates with stakeholders to create innovative and sustainable housing solutions.

Policies like the Home Ownership Scheme (HOS) and the Green Form Subsidized Home Ownership Pilot Scheme (GSH) aim to facilitate access to subsidized housing units (Dream Impact, 2022). Land scarcity is a primary issue, prompting the government to control land allocation for housing development, which involves high-level administrative decision-making and public consultation at the district plan stage. Government ownership of land enables direct access for subsidized housing construction, independent of developers or landowners (Chiu, 2007).

Strata Laws and Regulations

Most high-rise residential buildings are co-owned, under this arrangement, the owners are entitled to undivided shared of the building as a whole inclusive of the land the property was built on. In other words, the owners have the rights to enjoy the individual units and the same time are equally responsible to maintain and manage the buildings' common properties, which commonly are managed by deed of mutual covenant (DMC). There are no legal requirements to ensure participation of owners, as the participation are entirely voluntary (Hastings et al., 2006; Yau, 2011).

The only statutory provisions in power are the one protecting the incorporated owners that is the Building Management Ordinance, and the other regulating the function of property management corporation under the enactment of Property Management Services Ordinance (C.W. Ho & Liusman, 2016; Wadu Mesthrige, 2021).

Since neither it is governed by any law and voluntary, the challenge lies in getting the owners to participate and cooperate in major decision making as it is compulsory to gain agreement amongst owners. In other cases, despite not having any uniformity in an absolute managing body, any form of owners' organization is acceptable as collective arrangement, especially the likes of pre-war building that commonly do not have any form of building management (Hastings et al., 2006). There are mainly three types of owners' corporation in Hong Kong, Mutual Aid Committees and Owners' Committees (OC), Incorporation of Owners (IO), and / or the property management company (PMC) (Wadu Mesthrige, 2021). Amongst these corporation,

only IOs are protected under the Building Management Ordinance (C.W. Ho & Liusman, 2016).

Maintenance Fee and Issues

Common property management in Hong Kong significantly different compared to Malaysia, Australia and Singapore. The practice relies greatly on whether the owners are willing to act together, with common interest to fulfil the common goal (Walters, 2002). This common interest becomes more complicated especially matters relating to the cost estimation are involved. One of the most common issues is that this collective form of management has no authority in ensuring complete participation amongst all owners and issue the like of free-riding amongst owners have significant impact towards the ability to reduce transaction costs will likely fail. Even with establishment of PMC, complaints would still be filed, involving matters on PMC's failure to convene meetings, delay in follow-up and repairs of common facilities, inadequate housekeeping or security services and unauthorised occupation of common areas (Consumer Council, 2023).

Poor service quality, dissatisfaction over performance and mismanagement of management fees has become one of the most common complaints received. The more common output measures for regular operation are inclusive of cleaning, refuse removal, pest control and fire drills. Measuring surveys and documentation output revolves surveys, and records of incidents (C.W. Ho & Liusman, 2016). Maintaining and managing high-rise residential buildings are complex considering the challenges involving the maintenance of lifts, corridors, car parks and many more. Similar to the Malaysian strata living scenario, the interest to use the common property are not parallel to the interest to maintaining them, and are commonly found to be poorly maintained (Ashraf Wahab, 2020; Mahyuddin et al., 2018). The ageing and dilapidation of residential building in Hong Kong have also urge the government to call for mandatory building inspection. The rectification scheme was conducted over 45,400 statutory orders to investigate residential houses to conduct remedial works (Ebekozi et al., 2022). Regular inspections are related to frequencies of structural inspections, such as

the electrical supply, lifts inspections, fire-fighting system, plumbing, drainage as well as windows in common property.

Hong Kong's property management operates based on owners' common goals and drive to negotiate between themselves. The owners ability to cooperate, to mutually maintaining the common properties are commonly be in three main types of owners' corporation in Hong Kong, Mutual Aid Committees and Owners' Committees (OC), Incorporation of Owners (IO), and / or the property management company (PMC) (Wadu Mesthrige, 2021). However, based on a survey done by the council, it was reported that 60% of the owners were passive in attending the general meeting. The lack of understanding related to building management and regulations is one of many reasons for the low participation. The low turn up were also due to members mundane excuses such as, no free time, no interest, no significant opinion or too old to participate.

The strata owners and managers were also burdened by the substantial rise in management fees to accommodate maintenance costs. The volatile management fee that depends on the property market value is expected to further rise even more so as the building age. The leading reason the rise in management fees is inflation, increasing cost of maintenance and repair of said property and the rise of wages, so as claimed by the PMC (Consumer Council, 2023). Even though the management fee is considered to be higher with the intervention of a PMC, account management and maintenance budgeting in Hong Kong are to be conducted according to the guidelines as provided in the Building Management Ordinance (BMO). As it is stated in the BMO, the management is required to prepare an annual budget based on the amount paid by individual owners. Equally important for the management to prepare and maintain proper records (Tiun, 2006). The lack of transparency in share allocation has also elevated the owners' concern in regards to the management fees. According to a report, the council kept receiving complaints for the past 11 years (2012-2022) involving HK\$393 million, in which half of these complaints were on management charge disputes and the other half on poor service quality. This was mainly due to the poor practice in which the Deeds of Mutual Covenant (DMC) fails to prove or explain the share formula (Consumer Council, 2023).

It is crucial to note that the developer creates the Deed of Mutual Covenant (DMC) following its Guidelines and potentially without the presence nor involvement of the purchasers and potential purchasers throughout the process. As a result, management fee disputes occasionally arise involving matters like undivided shares, unfair division of common facilities and unfair distribution of expenses amongst owners. If owners fail to pay management fees, maintenance fees, or funds, the owners' corporation (OC) may take the following actions (Home Affairs Department, 2024):

- i. Reach out to the owner/tenant to discuss due payment.
- ii. Issue a reminder by sending double registered mail, including pertinent legislation excerpts.
- iii. Engage legal representation to pursue payment, potentially recording default with the Land Registry.
- iv. Initiate a claim with the Small Claims Tribunal for outstanding balances. The Small Claims Tribunal deals with claims up to \$75,000; claims between \$75,000 and \$3,000,000 are handled by the District Court, while claims exceeding \$3,000,000 fall under the jurisdiction of the High Court.

Refusal or non-payment are often time results from homeowner powerlessness and lack of control are significant themes in discussions about property management issues. Homeowners often feel powerless and unable to influence decision-making processes within their buildings (Shi, 2023). They have limited control over addressing concerns related to maintenance, repairs, and financial matters, which are primarily overseen by property management companies. This lack of control leads to frustration among homeowners, who feel marginalized in decision-making processes that directly affect their living environments and financial interests.

Owners' Attitude

Recent research has shed light on various social and safety issues prevalent in high-rise public housing in Hong Kong. Studies have shown that the presence of closed-circuit television (CCTV) surveillance systems may not effectively deter criminal activities such as robbery in these environments (Chow & Mawby, 2020). Despite the installation of CCTV cameras, incidents of robbery continue to occur, indicating potential limitations in the effectiveness of such security measures. This raises concerns about

the safety and security of residents living in high-rise public housing estates, highlighting the need for comprehensive approaches to address crime prevention and enhance safety measures in these areas.

Additionally, the overcrowding and inadequate living conditions prevalent in high-rise public housing estates have been associated with a range of social and health-related concerns. Studies indicate that substandard housing conditions, characterized by poor ventilation and sanitation facilities, contribute to adverse health outcomes among residents (Yau, 2012). Reports from recent years have further highlighted the impact of poor housing conditions on public health outcomes, emphasizing the consequences of inadequate hygiene measures and structural deficiencies on residents' well-being (Xiao & Siu, 2018). Concerns raised by residents of Hong Kong's second-poorest district regarding hygiene measures and structural safety underscore the pressing need for improvements in densely populated areas where living conditions often fall below standard (Kong, 2023). The cramped lifestyle experienced by the lower-income community in high-density high-rise housing underscores the crucial link between housing conditions, hygiene measures, and public health outcomes. Hence, policy interventions and enhancements to housing infrastructure are imperative to ensure improved living conditions and promote overall health and safety.

3.3.4 Summary of Best Practices

The most obvious aspect of residential development amongst these three countries, similarly to Malaysia, is the increasing demand and preferred development type in recent years, that is the strata (high-rise) residential developments. For Singapore and Hong Kong, the land scarcity may be the main factor, but for Australia and Malaysia, it has developed into a more convenient lifestyle as result of urban development and in depth understanding on the potential of strata properties (inclusive of mixed developments) have to offer.

Affordable housing is a prevalent issue across these four countries. In Australia, efforts have been made to redefine 'low-cost' housing as 'affordable' in order to enhance

standards and eliminate stigma and segregation of lower-income communities from other income groups. However, in Malaysia, the term 'low-cost housing' is still predominantly used despite the availability of other housing options such as 'Rumah Mampu Milik' and 'Rumah Selangorku'. Singapore, on the other hand, exercises strict control over the development of affordable housing through the Housing Development Board (HDB) and Built-to-Order (BTO) flats. While this is considered a proactive approach for Singapore, the extended construction waiting time has become a topic of discussion and concern among applicants. On the other hand, Hong Kong has become extremely unaffordable, leading to the rise of 'coffin homes,' especially because of the city's dense population and limited land availability. To address this issue, the Hong Kong Housing Society (HKHS) works with various groups to develop creative and sustainable housing options. Policies like the Home Ownership Scheme (HOS) and the Green Form Subsidized Home Ownership Pilot Scheme (GSH) aim to make subsidized housing more accessible. In summary, apart from Singapore, the regulatory procedural framework for affordable or low-cost housing exhibits similarities among Malaysia, Australia, and Hong Kong.

Even though the concept of strata living originated from Australia and has since been accepted by most nations, including Malaysia, Singapore and Hong Kongs, however, each country has thoroughly gone through adjustments on the practices of strata management especially relating to the strata law to fit the unique context respectively. Strata Management Act 2013, Building Maintenance and Strata Management Act 2004, and Building Management Ordinance, all have different approach to what would work especially in the establishment of the management bodies.

Despite the different forms of management bodies, collection of maintenance charge, and even the concept of strata title and living are different, these referred countries, Malaysia, Australia, Singapore and Hong Kong, inevitably still share the same common issues relating to high-rise building maintenance and the maintenance of the common property. To simplify, Table 3.14 shows the summarised comparison on strata management practices between Malaysia and the selected countries.

Table 3.14 Strata management practices

	Malaysia	Australia	Singapore	Hong Kong
Related laws and regulations	i) Strata Title Act 318 ii) Strata Management Act 757	i) Strata Schemes Development Act ii) Strata Scheme Management Act	i) Land Title (Strata) Act (LTSA) ii) Building Maintenance and Strata Management Act 2004 (BMSMA)	i) Building Management Ordinance (BMO) (Cap. 344) ii) Property Management Services Ordinance (Cap. 626)
Maintenance Charge	Maintenance charge	Management fee (inclusive of management fee, admin fee and letting fee)	Service & Conservancy Charges (S&CC)	Management fee
Laws on deciding of Maintenance fee	Maintenance charge is according to the share unit formula in existing SMA757 and STA318	No law controlling the amount or method determining Maintenance fee	Assigned share value provided by the COB. Rate may vary according to town council (may include subsidised rates)	Management fee is determined according to the: i) type of management ii) Building Management Ordinance (BMO)
Management Bodies	Joint Management Body (JMB) Management Corporation (MC)	Owners Corporation	Town Council or Owners' Corporation	Owners' Committees (OC), Incorporation of Owners (IO), property management company (PMC)
Maintenance practices	Compulsory / regulated	Compulsory / regulated	Compulsory / regulated	Voluntary
Factoring maintenance fee	Calculated based on Share Unit Allocation	Based on Weekly rental, annual rental and/or letting fee	<u>For HDB flats:</u> Town council's discretion <u>For Private Schemes:</u> Share value and building's location and common property provided	Collective decisions amongst co-owners (owners of units within the building) Amount is based on per square foot
Long term (major) Maintenance programme	Program Penyelenggaraan Perumahan (PPP), Program Tabung Penyelenggaraan 1Malaysia (TP1M)	Each strata development must make the 10-year plan from the first AGM and reviewed at least every 5 years.	Lift Upgrading Programme (LUP), Home Improvement Programme (HIP)	Public Local Maintenance Funding, Integrated Building Rehabilitation Assistance Scheme and many more

	Malaysia	Australia	Singapore	Hong Kong
Recovery of sums due	Warrant of Attachment, publicizing the names of defaulters, access restrictions to buildings and/or common facilities, and instalment payments	Imposing interest on unpaid levies, Court order, seize and sell, Bankruptcy, Creditor's Statutory Demand	Lawyer's letter, fines up to \$10,000, Tribunal / Court, auctioned off properties.	Direct negotiation, Registered mail, Lawyer's letter, Tribunal.
Owners' Attitude	Poor payment, Poor meeting attendance, Vandalism, Severe littering and Mismanaged wastes disposal	Noise and antisocial behaviour, Ineffective communication, and disputes over by-laws	Vandalism, Throwing objects from building, Clutter, and Littering	Overcrowding living condition poses safety, hygiene and health threats

This comparative study also revealed that all three countries, including Malaysia, encounter challenges related to maintenance costs or management charges. Both Australia and Singapore, which have advanced their strata laws to accommodate mixed-use developments, grapple with issues such as differentiating or defining equitable maintenance costs for shared common facilities among different proprietors. While the strata law in New South Wales (NSW) has yet to offer a satisfactory definition, Singapore has implemented a distinct calculation method: maintenance charges for residential strata are determined based on floor area, while those for mixed developments are based on a weight factor. Therefore, it is advisable for Malaysia to consider amending its management act to address the evolving landscape of strata developments, particularly the emergence of mixed-use developments, which necessitates a departure from the one-size-fits-all approach.

Another main concern on maintenance fee is late payments. Malaysia suffers from this issue, as it was recently highlighted that the poor maintenance in strata high-rise housing is due to poor collection of maintenance. In which 93% of high-rise issue involves maintenance fee debts. Disputes regarding maintenance fee fairness have exacerbated issues such as delayed contributions and outstanding payments. While each country and management body have its own methods for recovering overdue sums, Malaysia tends to adopt a more lenient approach, allowing for instalment payments or restricting access to common facilities. In contrast, countries like Singapore and Hong

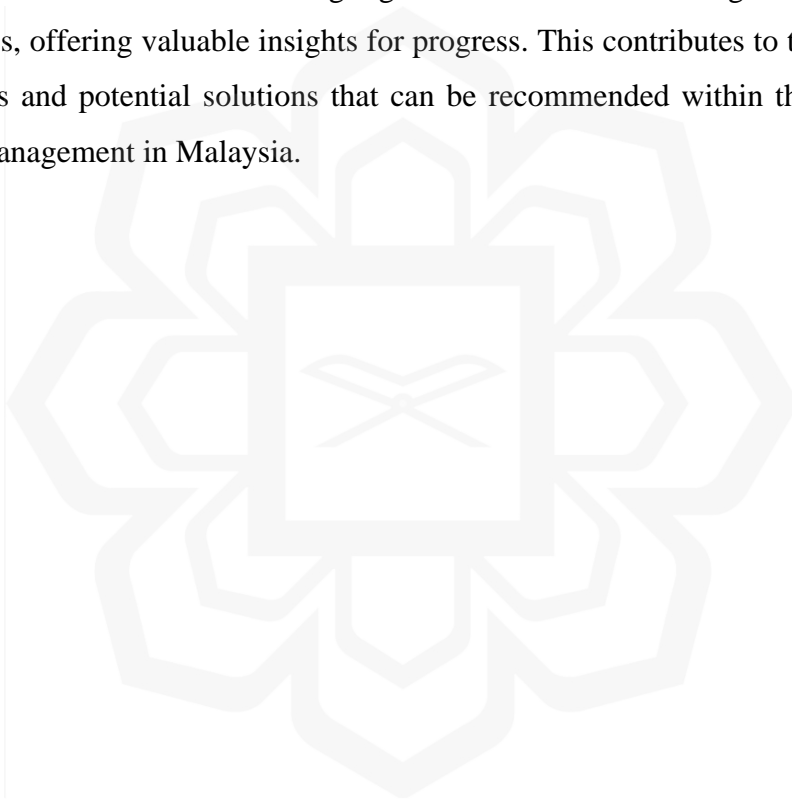
Kong commonly use legal notices, permitted under their respective strata management regulations. Given these practices, Malaysia could benefit from adopting a more proactive approach, including the issuance of lawyer's letters similar to those in Singapore and Hong Kong, as well as implementing late payment penalties like those in Australia, to deter tardiness and improve the current situation of outstanding dues.

Referring to the current practices in Singapore and Hong Kong, where the maintenance charge is determined based on market rental or property value to establish the baseline rate per square foot (for Hong Kong) or per share unit (for Singapore), it is noteworthy that Hong Kong's Building Management Ordinance mandates the presentation of these calculations to owners. This transparency is crucial, as many owners express immediate dissatisfaction with management fees due to a lack of transparency. What can be gleaned from this comparison is the significance of understanding the calculation basis, whether it is floor area-based or market price-based. In Malaysia, however, neither method is consistently practiced, resulting in a lack of accepted standards or guidelines for determining or monitoring maintenance fees within the Malaysian law and strata blueprint (Tawil et al., 2011; Tiun, 2006). Establishing an accessible baseline for property managers to determine fees would enhance confidence among strata owners regarding fee charges, ultimately reducing disputes over maintenance fee amounts.

Other noteworthy comparison is in regards to long-term major maintenance and / or upgrading works and aging buildings which Malaysia, Singapore, and Hong Kong provide subsidies or funding plans with specific conditions. On the contrary, Australia requires every development to establish a 10-year plan for significant rectification works starting from the initial general meeting. This plan is subject to review at least every 5 years, presenting an attractive approach that helps alleviate the burden on the government's annual budget.

3.4 CHAPTER SUMMARY

This chapter was able to identify, compare and contrast the practices of building and strata management within the scope of the maintenance works, costs, and different scenarios and types of high-rise residential buildings. Property management influences the quality and satisfaction of building condition and services. This chapter also illustrates the size and significance of a strata management as it has significant effects towards the urban dwelling and the overall quality of life amongst strata residents as practiced in Australia, Singapore and Hong Kong. The comparison of various social settings across these countries highlights diverse social challenges and management scenarios, offering valuable insights for progress. This contributes to the identification of issues and potential solutions that can be recommended within the framework of strata management in Malaysia.



CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 INTRODUCTION

This chapter explains the methodology applied towards achieving its objectives. It explains the data collection method, justifying the size and the sample selection including the clarification to the selected research area as well as the suitability of each method in answering each research questions. This chapter is focuses on three stages of this research study, (i) the research initiation and critical review, (ii) the data collection, and (iii) the data analysis.

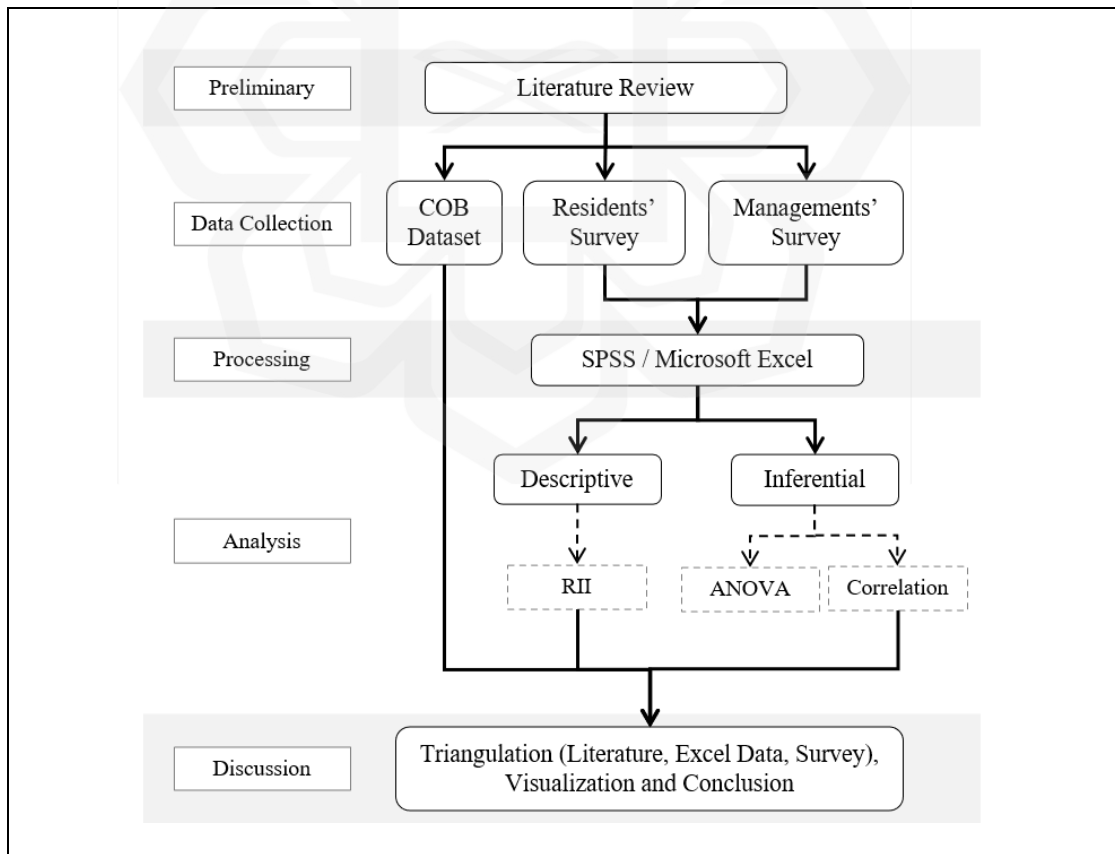


Figure 4.1 Stages of data collection and analysis

4.2 RESEARCH STAGES

4.2.1 Stage 1: The initiation and Critical Review

Identifying the problem statement and the significance of this study is established under the first chapter, through the first stage of the study which is the initial study. The identification of the problem statement is a product of an in-depth background study on the field of study. As the background study progresses, research questions and objectives are formed, consequently forms the significance of the research.

Understanding the scenarios and issues relating to the area of study is as important as identifying the problem statement. An extensive background study on the concept and issues through literature reviews and document analysis are discussed and scrutinized in Chapter 2 and 3. In regards to this study in particular, understanding the concept and origin of the subject matter is discussed and dissected into the legal and the technical aspect of the study area.

4.2.2 Stage 2: Data Collect and Collate

The data collection stage is performed via the primary and secondary data collection. The primary data collection is the first-hand data obtained through questionnaire survey, case study and interviews, that involves both qualitative and quantitative data. On the other hand, the secondary data collection is obtained through desk studies that requires critical analysis and understanding on the background of the research area.

4.2.2.1 Secondary Data

The desk study exercised for this study involves document analysis of issued official reports to identify the issues within the area. Developing analysis based on KPKT's data raw data sets and reports, to produce primary conclusion towards achieving the study's

objectives. Then further literature review highlights are explained to justify the variables and findings of the questionnaire surveys, selection for the structured interviews. Literature review involves analysing official Government's materials, journals, legitimate publications, books and media reports concerning strata management in Malaysia and selected benchmarked countries on its concept, legal frameworks and practices.

4.2.2.2 Primary Data

This study has a cross-sectional design of data collected between the strata owners / residents and the management bodies. The primary data was conducted to assess the satisfaction and the standard quality of shared properties in public low-cost housing, i.e., the PPR, and the private low-cost and low-medium cost strata housing, simultaneously to assess critical issues as experienced by the JMB/MC and the parcel owners, and to assess the factors in fixing maintenance charges.

There have been multiple studies on strata management, low-cost strata including case studies on low cost and affordable housing within Kuala Lumpur boundaries. Thus, in response to existing studies, this study finds it relevant to conduct a comparative case study focusing on private low-cost strata and flats in selected area within the state of Selangor, upon consideration of the 2020 update (Table 4.1) of existing stocks of low-cost strata, that shows Selangor to have the highest existing stock of high-rise strata.

Table 4.1 Existing Stock (units) for low-cost flat and flats, as of 2020 update

State	Existing Stock (2022)		Existing Stock (2018)	
	Low-cost flat	Flat	Low-cost flat	Flat
WP Kuala Lumpur	99,637	35,330	100,037	35,330
Selangor	183,198	108,636	183,014	106,149
Pulau Pinang	68,939	112,402	62,545	106,562
Johor	50,949	27,068	50,200	14,779
Melaka	3,416	9,107	3,336	8,245

State	Existing Stock (2022)		Existing Stock (2018)	
	Low-cost flat	Flat	Low-cost flat	Flat
Perak	8,269	5,590	8,269	4,573
Kedah	7,460	1294	6,742	998
Negeri Sembilan	6,393	8,272	6,393	8,212
Pahang	4,848	3,726	4,884	3,690
Terengganu	5,951	826	5,951	826
Sabah	27,807	15,569	28,047	14,737
Sarawak	8,687	5,598	8,244	5,790
Kelantan	1,031	2,221	813	1,221
Perlis	1,438	396	1,378	396
Total	478,023	336,035	469,853	311,508

Source: (National Property Information Centre (NAPIC), 2022b)

Upon observing the number of strata schemes between states, Selangor has the highest number of low-cost strata schemes. The selection further looked into the list strata schemes applied for the Tabung Penyelenggaraan Perumahan (TPP) in 2020 as provided by the KPKT. The following Figure 4.2 shows the location of the original low-cost strata schemes applicants for the said programme, TPP, in 2020. Whilst the following Table 4.2 shows the summary of applicants according to the COB local authority, full list is included as an Appendix.

Table 4.2 Summary of TPP Applicants within the state of Selangor

Local Authority	Low-Cost	Low Medium Cost	Total
MB Shah Alam	37	15	52
MB Petaling Jaya	41	23	64
MP Kajang	63	20	83
MP Selayang	37	33	70
MP Sepang	1	10	11
MP Ampang Jaya	13	8	21
MP Subang Jaya	29	14	43
MP Klang	29	18	47
MD Hulu Selangor	8	10	18
MD Kuala Selangor	8	10	18
MD Kuala Langat	3	4	7
Total	269	165	434

Source: KPKT (2020) and Author (2022)

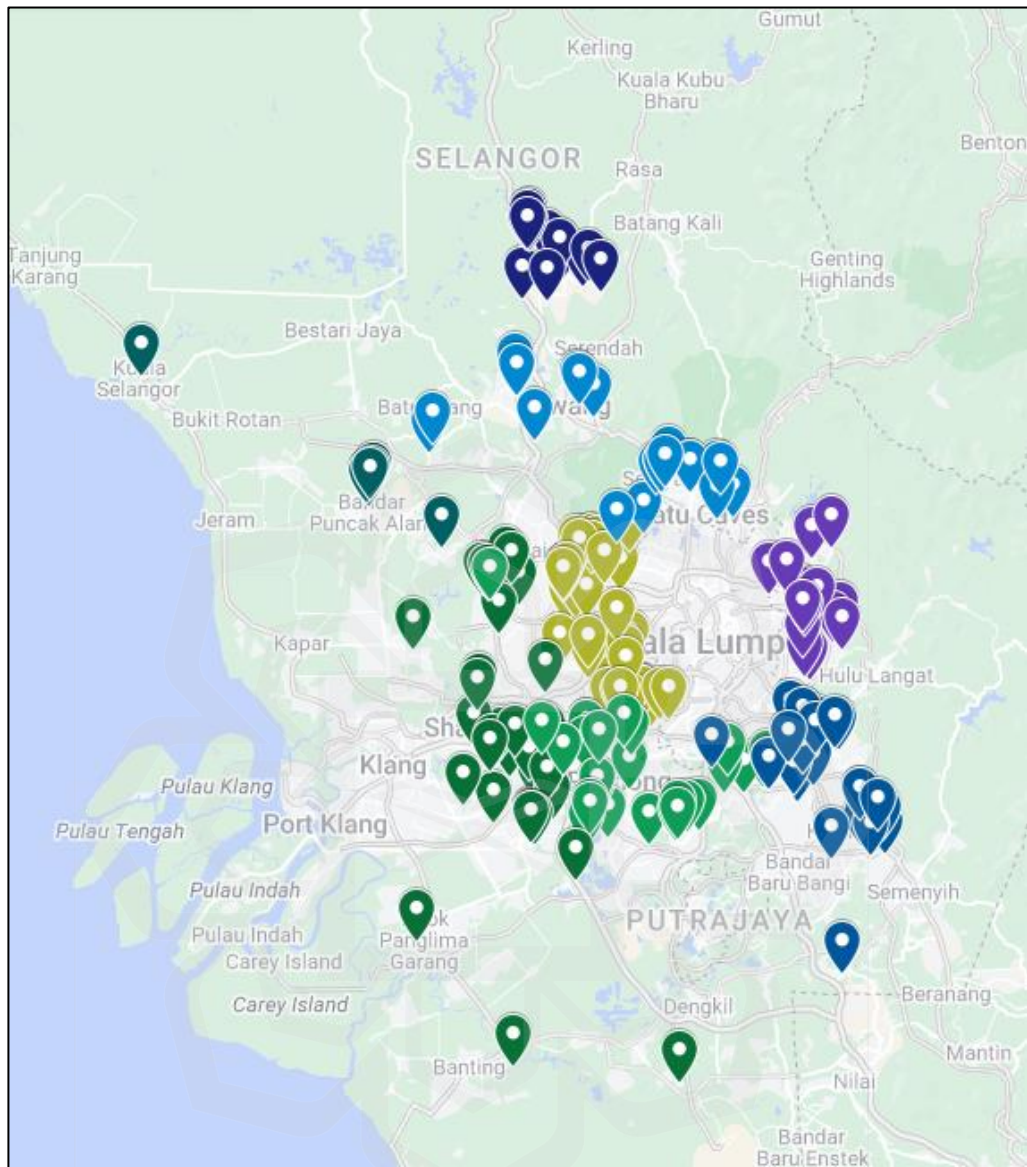


Figure 4.2 Sampling mapping (distribution of low cost and medium low cost)

Source: KPKT (2020), Google Maps (2023) and Author (2023)

Hence the target sample of survey data covers and expands throughout the four local authority areas via continent sampling. The outcome however, respondents were amongst those within the MP Ampang Jaya, MP Subang and MP Kajang. Upon further analysing the population profile within these three local authority areas, it was deemed appropriate to proceed this case study assessment based on these three areas based on

the number of strata units as well as the prospective variance in respondents' backgrounds that will potentially represent a conclusion of issues and awareness of strata management landscape towards achieving the study's aims and objectives.

As for the survey sampling amongst the public low-cost strata, i.e., the PPR housing, PPR schemes within the DBKL authority area was chosen as it has the highest number of PPR units in 2020, and continues to record the highest number in 2022. The following data in Table 4.3 was derived from the rented and owned PPR unit's breakdown, which was calculated and summarised to represent the total number of existing PPR units in Malaysia between the year 2020 until 2022. The table shows that PPR units within the WP Kuala Lumpur boundaries are consistently highest at 34,862 units throughout the data year, coming in second highest number of existing PPR units in Malaysia are those in Sabah with 23,009 in 2022, whilst state with the third highest number of PPR unit is Johor with 11,195 units in total.

Table 4.3 PPR units in completed project and type of dwellings

State	2022	2021	2020
Johor	11,195	11,195	11,195
Kedah	4,910	3,910	3,910
Kelantan	3,268	3,268	2,568
Melaka	1,436	1,436	1,436
Negeri Sembilan	670	670	670
Pahang	4,168	4,168	3,768
Perak	1,274	1,274	1,014
Perlis	1,428	1,428	1,428
Pulau Pinang	999	999	999
Sabah	23,009	23,009	23,008
Sarawak	4,791	4,791	4,140
Selangor	5,184	5,184	5,184
Terengganu	1,002	1,002	1,002
WP Kuala Lumpur	34,862	34,862	34,862
Total	98,196	97,196	95,184

Source: (KPKT, 2020b, 2021a, 2022)

Upon deciding on the target location and prospective target sampling, Dewan Bandaraya Kuala Lumpur (DBKL) was approached inquiring the list of PPR and the necessary permission to conduct the study, especially considering the national health condition of the study period that were risk prone due to the Covid-19 pandemic. The following Figure 4.3 shows the distribution of the PPR scheme under the governance of DBKL which were assigned according to three different administrative zones, Zone 1, 2 and 3.

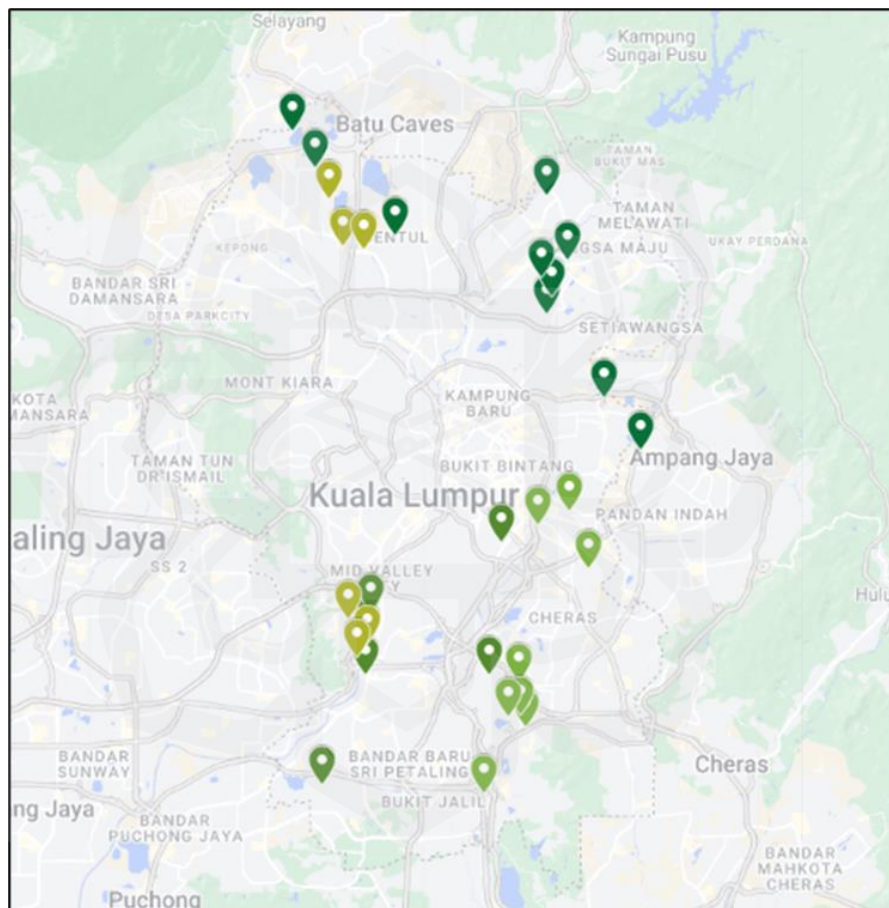


Figure 4.3 Distribution of PPR schemes under governance of DBKL
Source: DBKL Data (2021), Google Map (2023) and Author (2023)

In comparison to the overall number of the PPR projects throughout Malaysia, the distribution shows that the Kuala Lumpur area has the highest number of PPR

schemes, hence become a strategic decision for this study to focus the case study of PPR management within the Kuala Lumpur local area. Henceforth, based on the above justification, figure and summarised table, the selection for PPR scheme case study was determined by the significant total number of PPR units in WP Kuala Lumpur by comparison. This significant difference is expected to be able to represent the underlying issues in strata management given the large population base as well as the variance of household income and other profile of prospective strata residents.

4.2.2.3 Survey Design

A pilot study was conducted amongst the strata residents using the first questionnaire set to allow room in identifying further amendments that may be needed to improve the quality and efficacy of the survey (In, 2017). 30 respondents were approached during the pilot survey.

The initial pilot study questionnaire consists of up to five sections, which included (i) the respondents demographic background, (ii) the strata scheme building and management profile, (iii) the maintenance charges, the breakdown of the charges imposed, knowledge on the current maintenance charge, (iv) the satisfaction, the issues, as well as (v) the awareness on strata management activities, the rights under the Strata Management Act.

The result of the pilot survey shows that issues in strata management is significant especially matters related to the respondents' satisfaction. The pilot survey also shows that the respondents' awareness regarding the roles of the management body are relatively decent though it was not necessary to their direct knowledge of the strata legislation in power, that is the Strata Management Act, instead were based on other sources. However, the pilot study also found specific information regarding the strata development is not within the knowledge of strata owners and residents, such as building age or issuance of CCC, maintenance cost, exact number of units to name a few.

In response to the pilot survey conducted amongst the strata residents, it was found necessary to conduct similar survey but from the perspective of the management bodies instead. To fulfil the scope and objective of this study, the questionnaire elements were redefined and restructured to include aspects of current practices by the management bodies, condition of existing facilities and properties, knowledge on strata management, as well as issues and suggestions. These variable aspects were based literature review outcomes.

Finally, two sets of questionnaires were designed to target two groups respectively. Each questionnaire was divided into according sections as shown in Table 4.4 whilst the full questionnaire set is as attached in the Appendix.

Table 4.4 Structure of Questionnaire Survey

Strata Resident Survey			Management Survey		
A	Respondents' and Strata Scheme's Profile		A	Management's and Strata Scheme's Profile	
B	Strata Management and Maintenance Charge		B	Issues in Strata Management and Maintenance	
C	Residents' Awareness on Strata Management		C	Roles and Responsibilities of Strata Managers	

The questionnaire was designed to suit the prospective respondents, even though the main sections of the questionnaire are deemed similar. The questionnaire for the strata Resident, the questions relating to the strata scheme profile were manoeuvred towards their usage and satisfaction of their use towards available common facilities. This question is significant to understand whether there is any significant relationship between the maintenance charge amount and the usage and condition of the common facilities.

Questions on the respondents' satisfaction towards the existing active management body was also significant to further understand the roles played the management body were fulfilling their roles fittingly. Aside from satisfaction, the questionnaire was designed to identify critical management and maintenance issues

from the perspective of the strata residents. This perception will be able to achieve the study's objectives, which will further be analysed against the survey result of the management bodies. Both outcomes will provide an answer on what is the most critical issue in strata maintenance and maintenance.

The residents' survey was also designed to include the respondents' awareness on the existing strata legislation that is currently enforced. The questions include their perception on issue solving alternatives, as well as the roles of the management bodies. Similar to the satisfaction survey, the respondents' awareness is crucial in assessing their perception relating to the responsibilities of both the residents and the management bodies in regards to the strata management act.

Alternately, the questionnaire for the management bodies were designed with similar objectives but targets more specific responses. A specific question on actual maintenance cost was included to understand the depth of issues in maintaining and managing a strata scheme from the perspective of the management body. The survey for the management body also included a question on building age of the strata scheme through the details of the strata development's Certificate of Completion and Compliance (CCC), and Vacant Possession (VP). Through this question, this study shall be able to analysis whether there is any significant relationship between the building age and the actual maintenance cost sustained by the management.

Similar to questions on critical issues in maintaining and managing a strata scheme that was included for the residents, the management were also questioned on the same matter. Further analysis between issues and the responsibilities of the management body shall enlighten on an outcome on whether the current strata legislation and related authorities were able to assist and / or improve the managerial practices of the management body as a whole. If otherwise, the study shall be able to assess the future needs of strata management laws and practices that will benefit all parties involved, not limited to the residents, management, commissioner of buildings.

4.2.2.4 Survey Administration

Data were collected through convenient sampling amongst low-cost and low-medium strata schemes within the four selected local authority areas. The survey was conducted in a neutral environment where the respondents were randomly selected within the selected strata schemes, where the questionnaire surveys were verbally asked by trained enumerators according to the structured questionnaire.

Due to the Covid-19 pandemic that restricts social movement within the country, the data collection proceedings required permission from the relevant authority so as to ensure that the selected strata schemes are safe to be visited and to conduct a face-to-face survey with the target samples. Permission was acquired from the Dewan Bandaraya Kuala Lumpur (DBKL) as well as the Commissioner of Buildings (COB) for the survey to be conducted. However, even with the permission of the respective authority, access to individual strata schemes is subjected to approval from respective management body (operating JMB and MC). This approval and access were important considering the state of Covid-19 spread within the country and that the management bodies have the immediate knowledge infected rates within the strata schemes and each has the capacity to decide on the safety of the enumerators to approach target respondents. From the researcher perspective, it was deemed most appropriate for the survey to be conducted via online survey to reduce physical presence and risk of close contact with potential Covid cases.

Questionnaire survey administration also involves identifying the target samples. Sampling process involves identifying the population size of the study area, consequently to generalize the population to fit the objective of the questionnaire. The study took off by adopting selective sampling, however, as time and pandemic has become a factor of interference against the proceeding of the survey, a convenient sampling was eventually adopted. In order to decide on the sample size, an overview is done to identify different approach and thumb-rules to deciding the sample size.

When conducting exploratory factor analysis, it is recommended to maintain a sample-to-item ratio of at least 5:1, with the ideal ratio being 20:1. For instance, a study

with 20 items would require 400 respondents. Similarly, in determining sample size based on the sample-to-variable ratio, a minimum observation-to-variable ratio of 5:1 is recommended, although ratios of 15:1 or 20:1 are considered ideal. It is advisable for researchers, especially students, to opt for higher ratios to prevent underpowered findings. Krejcie and Morgan's table (KMT) offers a simpler approach to sample sizing, suggesting that a sample of 384 is sufficient for populations of 1,000,000 or more. In the context of Structural Equation Modeling (SEM), sample sizes of 100 are considered small, 100 to 200 are medium, and over 200 are large (Memon et al., 2020; Pinsonneault & Kraemer, 1993). Thus, according to numerous quantitative research studies, a sample size of 400 respondents is deemed sufficient to represent data outcomes within a population of 1,000 people.

Conferring to this study in particular, this study aims to conduct a survey involving two different target groups, (i) parcel owners or tenants and (ii) representative of management bodies. The rationale is that this study requires the JMB/MC respondents to answer the questionnaire survey in a manner of a collective response as a representative of their strata management organisation. Whilst responses representing organisations may be less than the 400 minimum responses, the same cannot be said for survey done to parcel owners.

Surveys directed to strata residents inclusive of both the parcel owners and the tenants, for this study was expected to meet the minimum 400 respondents according to the Krejcie and Morgan's table (KMT) rule of thumb. The reasons being that the questions directed to the parcel owners and tenants requires genuine individual responses, representing their individual strata units. The purpose of this survey is to obtain raw perspective and perception of strata residents. This study was able to collect 476 responses amongst strata owners and resident, in addition to 50 representatives of strata management bodies. This final samples size is similar to similar to a study done by Abdul-Rahman et al. (2014), which is 310 samples that aims to interpret living condition of low cost housing defects within Klang Valley.

The access to respondents were greatly relied on the opportunities and access given by respective management bodies that allowed a special session with the

management body as well as by informing strata residents on the conduct of the surveys in advance. The advance notices given by the management bodies to the residents was a great contribution factor to the success and efficient data collection.

4.2.3 Stage 4: Data Analysis

The next stage will be the discussion of the data analysis and findings. The findings are written and discussed according to the research aim, objectives and research questions. As this study involves more than one method of data collection, hence the data representation should be presented so that they are able to support and validate each other's' outcome. The data analysis will be conducted using both descriptive and inferential analysis.

Descriptive analysis will be used to elaborate on the recent data obtained from the data source, such as secondary data from the COB, to analyse the trends and relationship of the current and previous numbers in registered strata management. Data concerning historical strata issues and actions taken against incompliance will also be elaborated within this study, objectively to answer the research questions.

On the other hand, data gathered via surveys that were logged into Statistical Package for Social Sciences (SPSS) will involve inferential analysis. The inferential analysis justifies the research outcome that becomes a precedent conclusion, representing the population based on strategic sampling on surveys involving the strata owners and tenants (residents) as well as the strata management bodies.

The statistical assessment will involve the independent variables that includes the household income, occupation, education and strata category. Whilst the dependant variable includes the satisfaction level, the maintenance cost, the critical issues and overall assessment towards the strata scheme. The drive is to test the relationship between the variables. In brief, the statistical analysis includes several methods between Frequency distributions, Relative Importance Index (RII), Spearman 's Rank Order Correlation. The application of RII in this study is to analyse the quality of existing

strata management operation from the perception of the strata owners and tenants, surrounding the matters of maintenance, management, and maintenance charges as well on knowledge of their roles, rights and comprehension of the strata management act.

To understand the difference between the satisfaction of strata residents according to strata category and proprietorship category, ANOVA tests were employed. ANOVA or Analysis of Variance Test is a common test especially in social science studies. ANOVA test is done to differentiate the mean score of survey samples involving two or more groups. This test is used to identify significant dependency between variables. In this study, the independent variable is the strata category, original proprietorship (public or private) and type of dwelling (owner or tenants), on the other hand, the dependant variable is the satisfaction level and the maintenance charges. Null hypothesis is put to test in ANOVA analysis.

The result of this study suggests and supports that the overall satisfaction highly influenced by the maintenance service provided against the fee and condition of the facilities. However, the result may not comprehensively reflect the most discussed aspect of facility or building management. The outcome of this study expects to identify and synthesize new perspectives on how this satisfaction and even issues in strata management influences the ability to enforce the existing strata law, with possibility for future amendment and improvement of law enforcements and policy approach.

Data triangulation also forms part of the data synthesis, to conclude the outcome of each descriptive and inferential analysis. Several researchers agrees that triangulation in research is a method to prove the validity and credibility of the data collection outcome (Bans-Akutey & Tiimub, 2021). However, not to be misrepresented as a mixed method, triangulation is an approach taken by researcher to utilise and extract related information towards critically analysing the research outcome, in other word, data triangulation is a form of cross-validation approach (Noble & Heale, 2019).

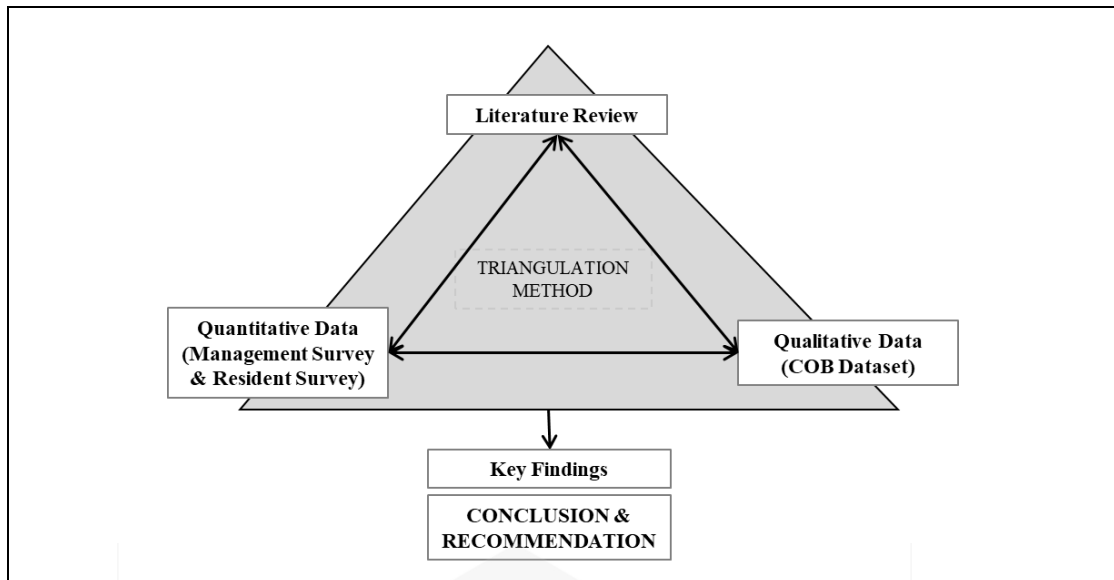


Figure 4.4 Triangulation Method

The triangulation method employed in this study encompasses three primary data sources: the COB dataset, two surveys, and the cross-referencing of these data with secondary sources such as literature reviews and document analyses. Through this process, key findings will identify primary issues consolidated across the data sources, pinpointing the most critical challenges in strata management. These issues will serve as the central focus for formulating recommendations aimed at enhancing strata management practices and legal frameworks in Malaysia.

4.3 CHAPTER SUMMARY

The described data collection conduct and analysis methods in this chapter will generate output in the upcoming chapter on data analysis. The application of descriptive analysis on secondary data as well as the inferential analysis of the primary data, which later be critically discussed through data triangulation of all three sources will produce the concluding findings and recommendation of the study.

CHAPTER FIVE

DATA ANALYSIS

5.1 INTRODUCTION

This chapter discusses the results and findings of the study presented in the preceding chapter in light of prior research. The analysis will be presented in three parts, (i) Document Analysis, (ii) Strata Owner Survey and (iii) Management Survey analysis. The analysis consumes both descriptive and inferential analysis. At the end of this chapter, an in-depth discussion findings triangulation synthesized to further identify future recommendation and to conclude the study.

5.2 PRIMARY DATA FROM COB

5.2.1 COB's Strata Management Registration Record

According to the Strata Management Act 757, each strata development and establishment of a strata management body is compulsory to submit the strata rolls, and the file a registration as a management body with the COB. Procuring this data set is significant in supporting the overall research findings.

As of 2020, there are 22,497 numbers of strata schemes throughout the peninsular of Malaysia, with a total of 2,517,547 parcels in total. Selangor and Wilayah Persekutuan (WP) have the greatest number of strata developments within the state, 9,428 schemes in Selangor and 5,902 schemes in Wilayah Persekutuan, whilst the third highest number of strata schemes is Pulau Pinang with 2,477 schemes. At the same time, there are five states that has more than 100,000 number of parcels amongst the strata

schemes collectively, namely Selangor (1,021,673), Wilayah Persekutuan (602,162), Pulau Pinang (310,701), Johor (290,241) and Melaka (130,302).

However, as recorded and calculated in Table 5.1 that the number of registered management bodies are not equal to the total number of schemes, which is 23,152 total strata developments in existence, but only 22,497 strata schemes are currently are registered with a management body or agent. Henceforth, calculations and analysis in this section will focus on the 22,497 strata schemes with registered management bodies. Based on the data shown in Table 5.1, it is observed that a total of 655 schemes, 3% of 23,152 schemes do not have management body registered. Some of which are due to issues like abandonment, or insolvency.

Table 5.1 Number of Strata Management Bodies according to state for the year 2020

State	Total Development	Total Scheme*	Developer	JMB	MC	Agent	Other
Selangor	9,428	9,354	4,443	1,754	1,415	715	1,027
Wilayah Persekutuan	5,902	6,305	978	598	3,625	16	1,088
Pulau Pinang	2,477	2,477	810	514	932	32	189
Johor	2,369	1,513	827	312	361	-	13
Melaka	1,227	1,225	805	178	212	20	10
Negeri Sembilan	745	745	317	136	282	8	2
Pahang	365	360	13	100	232	-	15
Perak	327	327	33	100	184	2	8
Kedah	186	68	16	29	21	2	-
Terengganu	72	72	18	20	22	-	12
Kelantan	50	47	14	25	8	-	-
Perlis	4	4	-	2	2	-	-
Total (development)	23,152	22,497*	8,274	3,768	7,296	795	2,364
In %	n/a	100	37	17	32	4	10
*Total number of strata developments WITH registered management body							

Source: COB 2020 Data and Author's Calculation

In comparison to the previous years, Figure 5.1 Distribution of Management Bodies according to year, 2016-2020, there is a steady increase in the number of strata schemes, but the number of MC were not linear to the growth of strata schemes. This analysis illustrates that there may be hindrance or challenges for management bodies, to move forward from developers' management period, to JMB, and finally to management corporation.

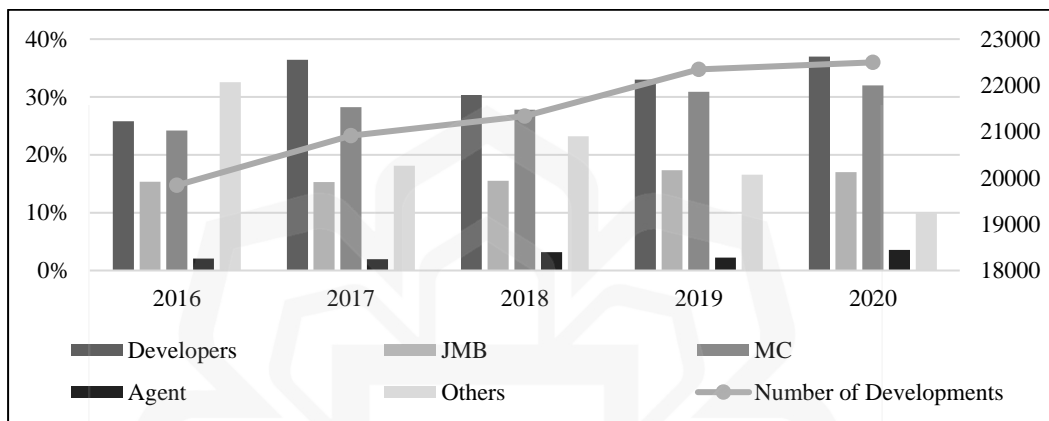


Figure 5.1 Distribution of Management Bodies according to year, 2016-2020

Source: COB Data and Author's Calculation

The strata schemes in existence can further be studied according to its respective local authorities within each state. Table 5.2 below further shows the distribution of the categories with the type of management according to the respective local authorities (COB). The categories labelling the local authorities in the following table represents the total number of existing parcels within the local authority area, as follows:

- i. Category 1 (More than 50,000 parcels)
- ii. Category 2 (10,000 parcels to 50,000 parcels)
- iii. Category 3 (3,000 parcels to 10,000 parcels)
- iv. Category 4 (Less than 3,000 parcels)

In other words, for example, referring to the following Table 5.2, the COB of DBKL oversees 6,276 strata schemes, accumulating to more than 50,000 parcel units, this includes attending to matters of dispute, complaints amongst other responsibilities.

Based on the data calculated in Table 5.2, strata schemes that are under the management of an MC are the highest in category 1 areas, at 6,281 (36%), while both within areas of Category 2 and 3, developer's management takes up majority in managing the strata schemes at 1,828 (49%) and 384 (17%) within their respective area. Meanwhile, majority of strata schemes within Category 4 are managed by MC, even though the total number of schemes are only 99 schemes. In short, this data can be resolved as, majority of the strata schemes are still under the developer's management (37%), followed by MC (32%), JMB (17%), Other (11%) and managing agents (4%).

Table 5.2 Distribution of management bodies according to local authority (2020)

	Local Authority	Type of Management (No. of schemes)				
		Developer	JMB	MC	Agent	Other
Category 1	Dewan Bandaraya Kuala Lumpur	971	584	3,617	16	1,088
	Majlis Perbandaran Pulau Pinang	118	332	697	32	189
	Majlis Bandaraya Subang Jaya	249	321	193	310	162
	Majlis Bandaraya Petaling Jaya	656	246	189	162	0
	Majlis Bandaraya Johor Bahru	223	123	175	0	8
	Majlis Perbandaran Kajang	1,090	304	182	69	0
	Majlis Perbandaran Selayang	93	177	382	0	0
	Majlis Perbandaran Ampang Jaya	104	204	153	91	71
	Majlis Bandaraya Shah Alam	93	199	240	10	0
	Majlis Perbandaran Klang	1,490	121	35	9	9
	Majlis Bandaraya Seberang Perai	692	182	235	0	0
Majlis Bandaraya Seremban	243	122	183	8	2	
Total Category 1		6,022	2,915	6,281	707	1,529
Category 2	Majlis Perbandaran Sepang	637	108	24	13	1
	Majlis Bandaraya Iskandar Puteri	281	94	61	0	0
	Majlis Bandaraya Melaka Bersejarah	154	56	172	7	9
	Majlis Daerah Hulu Selangor	5	20	8	43	488
	Majlis Bandaraya Ipoh	15	35	137	0	3
	Majlis Daerah Kuala Langat	20	40	4	0	296
	Majlis Perbandaran Pasir Gudang	6	9	46	0	0
	Majlis Perbandaran Hang Tuah Jaya	637	108	24	13	1
	Majlis Perbandaran Port Dickson	73	13	94	0	0
Total Category 2		1,828	483	570	76	798
Category 3	Majlis Perbandaran Bentong	1	24	16	0	0
	Majlis Daerah Kuala Selangor	6	13	3	8	0
	Majlis Daerah Kampar	0	13	16	1	5
	Majlis Daerah Cameron Highlands	7	33	34	0	2

	Local Authority	Type of Management (No. of schemes)				
		Developer	JMB	MC	Agent	Other
	Majlis Perbandaran Kota Bharu Bandaraya Islam	14	24	7	0	0
	Majlis Perbandaran Kuantan	4	29	179	0	4
	Majlis Bandaraya Kuala Terengganu	18	15	22	0	12
	Majlis Perbandaran Kulai	307	14	13	0	0
	Majlis Perbandaran Manjung	3	29	11	1	0
	Majlis Bandaraya Alor Setar	12	18	6	0	0
	Majlis Perbandaran Batu Pahat	2	30	5	0	0
	Perbadanan Putrajaya	4	7	8	0	0
	Majlis Perbandaran Kluang	0	12	3	0	1
	Majlis Perbandaran Muar	3	9	15	0	3
	Majlis Perbandaran Langkawi	3	4	5	0	0
	Majlis Perbandaran Sungai Petani	0	5	3	0	0
Total Category 3		384	279	346	10	27
Category 4	Majlis Perbandaran Alor Gajah	14	7	4	0	0
	Perbadanan Labuan	3	7	0	0	0
	Majlis Daerah Kerian	3	4	2	0	0
	Majlis Daerah Pengerang	0	5	1	0	0
	Majlis Daerah Kota Tinggi	4	7	41	0	0
	Majlis Perbandaran Taiping	2	8	5	0	0
	Majlis Daerah Batu Gajah	7	3	0	0	0
	Majlis Perbandaran Kulim	1	1	4	0	0
	Majlis Perbandaran Kangar	0	2	2	0	0
	Majlis Perbandaran Temerloh	0	13	1	0	1
	Majlis Daerah Tanjong Malim	0	1	3	0	0
	Majlis Daerah Tapah	1	1	0	0	0
	Majlis Perbandaran Kemaman	0	5	0	0	0
	Majlis Daerah Pontian	0	6	0	0	1
	Majlis Perbandaran Teluk Intan	1	4	5	0	0
	Majlis Daerah Raub	0	1	1	0	2
	Majlis Daerah Jempol	0	0	4	0	0
	Majlis Daerah Kuala Pilah	0	1	1	0	0
	Majlis Perbandaran Jasin	0	7	12	0	0
	Majlis Daerah Lipis	0	0	1	0	6
	Majlis Daerah Kubang Pasu	0	1	3	2	0
	Majlis Daerah Sabak Bernam	0	1	2	0	0
	Majlis Daerah Segamat	0	2	1	0	0
	Majlis Perbandaran Kuala Kangsar	0	2	5	0	0
	Majlis Daerah Pekan	0	0	0	0	0
	Majlis Daerah Labis	1	1	0	0	0
	Majlis Daerah Maran	1	0	0	0	0
	Majlis Daerah Kuala Krai	0	1	1	0	0
Majlis Daerah Rembau	1	0	0	0	0	
Majlis Daerah Perak Tengah	1	0	0	0	0	
Total Category 4		40	91	99	2	10
Total All Categories (22,947 schemes)		8,274	3,768	7,296	795	2,364

Source: COB 2020 Data and Author's Calculation

The table and the numerical data pertaining to strata schemes provide valuable insights into the magnitude of the responsibility shouldered by the COB in terms of enforcing compliance and resolving issues relevant to the strata management act. Subsequently, this study will delve into the documented instances of enforcement actions taken in accordance with offenses specified under the strata management act.

5.2.2 COB's enforcements on failure to comply to Strata Management Act 2013

The following data set shows the detailed enforcement taken against offence under related sections within the year 2020. Prior to delving further into Table 5.3, Figure 5.2 is drafted to assist further understanding on the magnitude of such offence and the parties involved, in other word, a simpler representation of each offence according to the strata management act. By this figure alone, it can be primarily deduced that several Enforcements were taken at different stages of strata management, including before construction completion relating to the schedule of parcels, compliance of duties for all the managements from during the developer management period, JMB until MC are established.

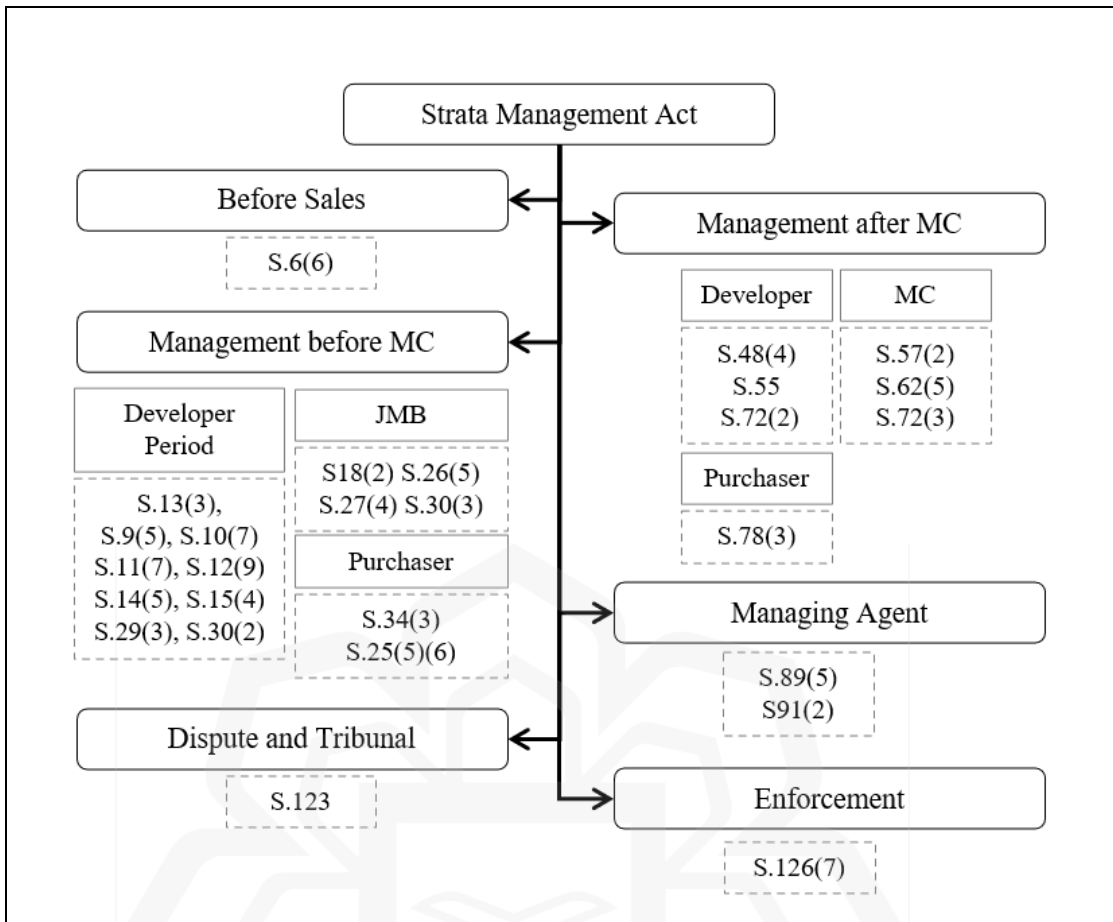


Figure 5.2 Parties and Stages of offences according to the sections of Strata Management Act 2013

Continuing from the preceding illustration, Table 5.3 provides a detailed breakdown of enforcements, highlighting the three highest instances related to the recovery of unpaid charges, totalling 3,201 enforcements. Additionally, matters concerning accounts resulted in 308 enforcements. This study can succinctly conclude that in 2020 alone, financial issues, including accounts and maintenance charges, comprised 80% of total offenses and enforcements taken, representing a significant finding.

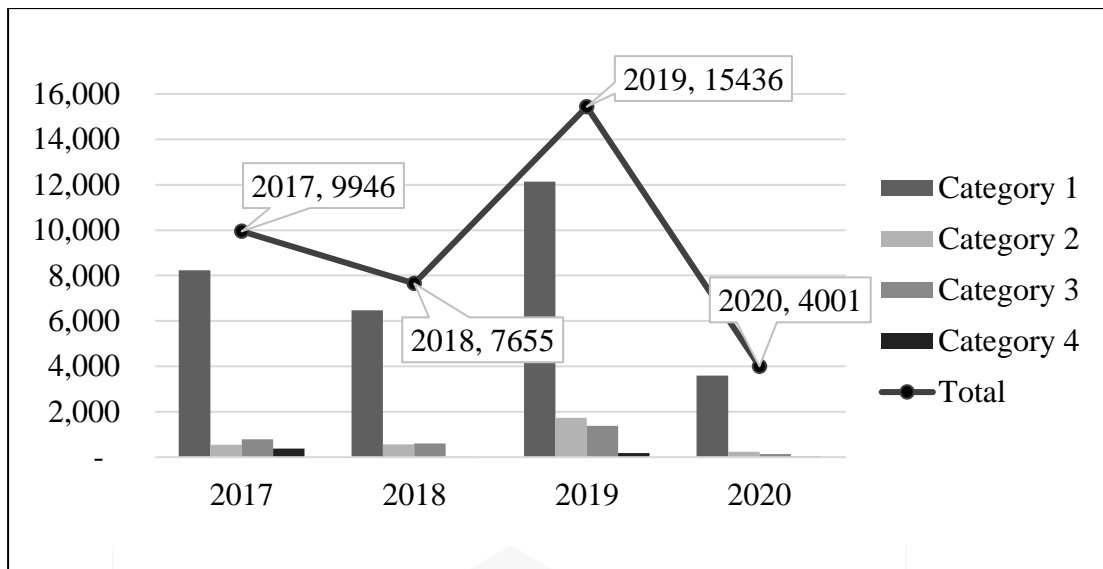
Table 5.3 Number of enforcements for non-compliance in the year 2020

Section. No.	Offence against (Section heading)	No. of Enforcements	Default by
Matters of Maintenance Account			
Sect. 10(7)	Developer to establish maintenance account	8	Any person / Developer
Sect. 11(7)	Developer to establish sinking fund account	8	Any person / Developer
Sect. 13(3)	Prohibition on collection of moneys before accounts are opened	9	Any person
Sect. 26(5)	Offence against "Duties of joint management body in relation to accounts"	86	JMB
Sect. 62(5)	Duties of joint management body in relation to accounts	131	MC
Sect. 92(6)	Developer to pay deposit to rectify defects on common property	66	Developer
Sub-total: 308 (7.7%)			
Matters of Charges			
Sect. 12(9)	Purchaser and developer to pay Charges and contribution to sinking fund	1	Developer
Sect. 14(5)	Duties of developer in relation to accounts	3	Developer
Sect. 25(5)(6)	Parcel Owners to pay charges and contribution to the sinking fund, to the JMB	500	Purchaser
Sect. 29(3)	Duty of developer in respect of Charges for building or land intended for subdivision into parcels completed before commencement of this Act	20	Developer
Sect. 34(3)	Procedure on recovery of sums due	1,308	Purchaser
Sect. 78(3)	Procedure on recovery of sums due	1,369	Purchaser
Sub-total: 3,201 (80%)			
Matters of Duties and Powers			
Sect. 6(6)	Schedule of parcels to be filed with the Commissioner before sale of any parcel	40	Developer
Sect. 9(5)	Duties and powers of developer during developer's management period	3	Developer
Sect. 15(4)	Handing over by developer to the joint management body	22	Developer
Sect. 18(2)	Duty of developer to convene first annual general meeting of joint management body	28	Developer
Sect. 27(4)	Dissolution of joint management body	5	JMB
Sect. 30(2) @ 30(3)	Register of parcel owners	49	Developer / JMB
Sect. 48(4)	Duties and powers of developer to maintain and manage	1	Developer
Sect. 55(4)	Handing over of control to Management Corporation	4	Developer
Sect. 57(2)	Duty of developer to convene first annual general meeting	23	MC
Sect. 89(5)	Powers and duties of managing agent	6	Managing Agent

Section. No.	Offence against (Section heading)	No. of Enforcements	Default by
Sect. 72(2) @72(3)	Strata Roll	10	Developer / MC
Sub-total: 191 (4.8%)			
Dispute and Termination			
Sect. 91(2)	Termination of Management Agreement	16	Managing Agent
Sect. 123	Criminal penalty for failure to comply with (Tribunal) award	284	Any person
Sect. 126(7)	Search and seizure with warrant	1	Any Person
Sub-total: 301 (7.5%)			
Total: 4,001 (100%)			

Source: COB 2020 Data and Author's Analysis & Calculation

To further analyse whether such account and unpaid sum are of a significant and re-occurring issue throughout the years, by comparison, the data set in Figure 5.3 below shows the number of enforcements taken between the year 2017 until 2020. There is no particular inclining or declining trend on the number of enforcements taken, but more than 75% of the enforcements taken were those within local authorities of Category 1. The detailed breakdown of the of enforcements taken between 2017 and 2020 are as follows:



	Category 1		Category 2		Category 3		Category 4		Total	
	F	%	F	%	F	%	F	%	F	%
2017	8,228	82.7	543	5.5	789	7.9	386	3.9	9,946	100
2018	6,471	84.5	558	7.3	608	7.9	18	0.2	7,655	100
2019	12,134	78.6	1,739	11.3	1,386	9.0	177	1.1	15,436	100
2020	3,600	90.0	244	6.1	135	3.4	22	0.5	4,001	100

Figure 5.3 Enforcement Trend from 2017 until 2020

Source: KPKT (2017, 2018, 2019) Commissioner of Buildings (2020) & Author's Calculation (2021)

After analyzing the total number of enforcements, a further investigation was conducted to rank the top five highest instances of enforcements from 2017 to 2020. The data, along with the author's calculations based on the total cases studied during this period, which amounted to 30,223 cases, revealed that in 2020, the top five enforcements for non-compliance accounted for 3,592 cases, representing 90% of the total 4,001 cases. Similarly, in 2019, these enforcements constituted 70% (10,869 out of 15,436 cases), in 2018, 88% (6,747 out of 7,655 cases), and in 2017, 91% (9,015 out of 9,946 cases). The majority of these enforcements were attributed to the failure of relevant individuals or management to comply with duties related to maintenance fees and sinking funds, as indicated in the Table 5.4.

Table 5.4 Number of Enforcements cases between 2017 until 2020, Highest Five

Rank	2020	2019	2018	2017
1	Sect.78(3) - 1,369	Sect.34(3) - 4,300	Sect.34(3) - 4,494	Sect.34(3) - 6,152
2	Sect.34(3) - 1,308	Sect.78(3) - 2,043	Sect.78(3) - 1,344	Sect.72(2)(3) - 1229
3	Sect.25(5)(6) – 500	Reg. 32(5) - 1,862	Sect.123 – 368	Sect.78(3) - 639
4	Sect.123 - 284	Reg.21(5) - 1,817	Reg.34(2) – 366	Reg.9(7) – 545
5	Sect.62(5) – 131	Reg.34(2) – 847	Sect.18(2) – 175	Sect.48(4) - 472
Total	3,592	10,869	6,747	9,015

	Description:
Regulation 9(7)	Failure of developer to assign share units and settle matters related to sale and purchase
Regulation 21(5)	Failure (of any person, agents or management) to comply to sub-regulations on management registration, and undertake duties
Section 25(5)(6)	Upon notice, Parcel Owner shall pay due maintenance charges and sinking fund to JMB
Regulation 32(5)	Failure (of any person, agents or management) to maintain and manage common property
Section 34(2)(3)	Failure by Purchaser or parcel owner to pay maintenance charges and sinking fund
Section 78(3)	Upon, notice, Failure by any proprietor (purchaser or parcel owner or management) to pay maintenance charge and sinking fund
Section 72(2)(3)	Failure by developer and MC to prepare and maintain strata roll
Section 123	Failure by any person to comply to Tribunal award

Source: Author's Calculation

Further analysis found that the majority of the enforcements taken are related to account and fees. The following data summary in Table 5.5 shows the Author's calculated outcome for this study. The previously shown data is further reconsolidated according to its enforcements taken following the provisions and sections under the Strata Management Act 757. The analysis below again indicates the magnitude of failure to pay maintenance fee and sinking fund (Section 34(2) and Sect. 78(3)) amongst strata housing in Malaysia.

Table 5.5 Total Number of Enforcements Taken throughout 2017 until 2020
According to the Strata Management Act 2013 provisions

Ranking	Section No.	Description / Offences	Number of Cases
1	Section 34(3)	Procedure on recovery of sums due – purchaser / owner fails to comply to notice	16,254 (53.7%)
2	Section 78(3)	Procedure on recovery of sums due – proprietor fails to comply to notice	5395 (17.8%)
3	Regulation 32(5)	Services of any person or agent to maintain and manage common property – Failure to comply	1,862 (6.2%)
4	Regulation 21(5)	Services of any person or agent to maintain and manage common property – Failure to comply	1,817 (6.0%)
5	Regulation 34(2)	Procedure on recovery of sums due –filed claims against purchaser / owner	1213 (4.0%)
6	Section 72(2) @72(3)	Strata Roll – Failure to comply	1,229 (4.1%)
7	Section 123	Criminal penalty for failure to comply with award	652 (2.2%)
8	Regulation 9(7)	Duties and powers of developer during developer’s management period	545 (1.8%)
9	Section 25(5) @ 25(6)	Parcel owners to pay Charges and contribution to the sinking fund, to the joint management body	500 (1.7%)
10	Section 48(4)	Duties and powers of developer to maintain and manage	472 (1.6%)
11	Section 18(2)	Duty of developer to convene first annual general meeting of joint management body	175 (0.6%)
12	Section 62(5)	Duties of joint management body in relation to accounts	131 (0.4%)
Total			30,245 (100%)

Source: Author’s Calculation

The data shows that the three highest enforcements taken were in regards to the sum due by the default of all related parties. The different section (provisions) under the Strata Management Act 2013 is due to the different stages in which the same offence is made (see Figure 5.2). A separate study and survey was also conducted and concluded

the top two most challenging matter in strata management is to ensure all unit owners to pay their maintenance fee and to collect monthly maintenance fee form owners/residents (Abas et al., 2021).

5.2.3 SUMMARY OF COB DATA OUTPUT

Based on the analysis of COB data input discussed thus far, it is evident that there is a significant issue with non-payment of maintenance fees and sinking funds. Several published reports have also highlighted that poor collection of maintenance fees results in subpar maintenance execution. However, the data provided by the COB lacked detailed reasons or further insights into these cases. As a way forward, this study will conduct a questionnaire survey to gain additional understanding of whether this issue persists from the perspectives of both residents and management bodies. Subsequently, the study will employ triangulation methods on the data collected from these three sources to further ascertain the extent of these issues.

5.3 STRATA RESIDENTS' RESPONSE ANALYSIS

The data analysis process kicked-off after the data entry and data cleaning using the SPSS software. The final number of valid respondents from the final survey is 467 responses. The survey that was conducted between April and May 2021 using hybrid method, online and face to face, due to movement control order restrictions. The intended discussion in this section is further divided into sub-sections. Each sub-section reporting on the respondents' background, followed by the respondents' knowledge on their strata management activities. This section also covers matters relating to the maintenance fee, including the amount, the respondents' perception on the charged amount and their satisfaction levels relating to the management and maintenance of relevant strata scheme, followed by the respondents' awareness and knowledge on the rights and responsibilities as parcel owner and / or tenants and roles and responsibilities of the management body according to the strata management act.

5.3.1 Respondents' Profile

The survey includes questions related to respondents' household size, age, income, marital status and their socio-economic particulars. The results are shown in Table 5.6 below. The results from the respondents' background survey shows that 52.9% of the respondents participated in the survey were aged between 41 to 60 years old, 39.1% aged between 21 and 40 years old, while the remaining 7.4% are 60 years old and above and 0.6% are those 20 years and younger. Which according to their marital status, majority of 81.5% were married and 11.8% were single.

Table 5.6 Respondents' Profile

Categories	Variables	F	%
Age	< 20 years old	3	0.6
	21 - 40 years old	186	39.1
	41 - 60 years old	252	52.9
	>61 years old	35	7.4
Gender	Male	249	52.3
	Female	227	47.7
Race	Malay	457	96.0
	Chinese	9	1.9
	Indian	10	2.1
Marital Status	Single	56	11.8
	Married	388	81.5
	Single Parent/ Widow	32	6.7
Household Size	1-3 pax	146	30.7
	4-6 pax	266	55.9
	7-9 pax	64	13.4
Occupancy Status	Self-own	336	70.6
	Tenant	140	29.4
Household Income	Less than RM2,500	210	44.1
	RM2,501 - RM3,170	106	22.3
	RM3,1701 - RM3,970	73	15.3
	RM3,971 - RM4,850	24	5.0
	RM4,850 and more	23	4.8
	No Fix Income	40	8.4
Job description	Government Servant	78	16.4

Categories	Variables	F	%
	Private	221	46.5
	Retiree	15	3.2
	Self-Employed	102	21.4
	Student	17	3.6
	Un-employed	43	9.0
Education	Higher Tertiary	64	13.4
	Diploma	78	16.4
	Foundation / Certificate	64	13.4
	High school	259	54.4
	Primary School	11	2.3
Strata Category	PPR	170	35.7
	Low-cost	161	33.8
	Low-medium cost	145	30.5
Original Proprietor	Public	170	35.7
	Private	306	64.3

Majority of the respondents are those of the lower income group, 44.1% with household income of less than RM2,500, 22.3% were from RM2,501 to RM3,170 income group followed by income group of RM3,971 to RM4,850 (5.0%) and RM4,850 (4.8%). This meets the expectation of the target population of those residing within PPR, low-cost and low-medium cost strata housing. 8.4% of the respondents were those not having fix income or unemployed some were due to job lay-offs due to the pandemic.

Based on the employment category as shown in Table 5.6 above, 46.5% of the respondents worked in private sector, in which 21% of them earned less than RM2,500 per month of household income. Meanwhile 1.7% of the respondents claimed to not have fixed income which are amongst those claimed to be self-employed.

The survey included questions relating to the respondents' strata housing profiles, including its location, strata category as well as the common facilities provided. A cross tabulation analysis was done to identify the distribution of responses between the strata schemes' location and its categories (PPR, low-cost-low-medium cost). The result in Table 5.7 below.

Table 5.7 Crosstabulation

Local Authority Area	PPR		Low-cost		Medium-low cost		Total	
	F	%	F	%	F	%	F	%
Majlis Pebandaran Kajang	0	0.0	89	18.7	119	25.0	208	42.7
Majlis Bandaraya Petaling Jaya	0	0.0	23	4.8	11	2.3	34	7.1
Majlis Bandaraya Shah Alam	0	0.0	38	8.0	15	3.2	53	11.1
Dewan Bandaraya KL	170	35.7	11	2.3	0	0.0	181	38.0
Total	170	35.7	161	33.8	145	30.5	476	100.0

As shown in Table 5.7 above, the highest respondent participation is those residing in PPR DBKL at 35.7%, followed by low-cost strata housing with majority of 33.8%, 18.7% of which are located within MP Kajang, whereas 30.5% of the respondents are resident of medium-low-cost strata housing, majority, 25% are also located within the MP Kajang area.

Following the developments' location and category, the response distribution is further analysed according to the type of management body currently active in the said strata. Table 5.8 shows a cross-tabulation analysis done between category of strata scheme and the operating management body. 30.7% are strata schemes under the management of Joint Management Body (JMB), 27.9% under the Management Corporation (MC), while majority (33.6%) are managed by 'other', particularly the PPR surveyed that were not managed by management bodies, instead were managed by its local authority, DBKL.

Table 5.8 Strata Category and type of management

	Projek Perumahan Rakyat (PPR)		Low-cost		Medium-low cost		Total	
	F	%	F	%	F	%	F	%
JMB	7	1.5	63	13.5	76	16.3	146	30.7
MC	0	0	83	17.8	50	10.7	133	27.9

	Projek Perumahan Rakyat (PPR)		Low-cost		Medium-low cost		Total	
	F	%	F	%	F	%	F	%
Managing Agent	9	2	0	0.0	10	2.1	16	4.0
No Active Management	8	2	10	2.1	0	0.0	18	3.8
Respective Local Authority	146	31	5	1.1	9	1.9	160	33.6
Total	170	36	161	34.5	145	31.0	467	100.0

‘Other’ form of management body in this survey was referring to those in PPR, that are managed by the local authority, in this case, DBKL, whilst other responses include those who were unsure of the current management as there were issues with the previous management.

A brief question on lift service provided in respondents’ strata scheme was included in the survey. Table 5.9 shows that 72.9% of the respondents came from strata schemes that are equipped with lift service, with 35.7% were from PPR, 23.1% from medium-low-cost strata and 14.1% are from low-cost strata.

Table 5.9 Crosstabulation of strata category according to walk-up or with lifts

	PPR		Low-cost		Low-medium cost		Total	
	F	%	F	%	F	%	F	%
Walk-up	0	0.0	94	19.7	35	7.4	129	27.1
Lifts	170	35.7	67	14.1	110	23.1	347	72.9
Total	170	35.7	161	33.8	145	30.5	476	100.0

The importance of identifying the whether the strata schemes with or without lift service provided is to assess on whether this facility has any impact towards the maintenance fee and cost as the data are further analysed in this chapter.

5.3.2 Maintenance Fee

This section focuses on the respondents' knowledge on matters related to the maintenance fee. The first question was on the amount of maintenance fee imposed by the management body on the strata owners / residents. The responses shown in Table 5.10 shows the amount, as well as the scenario which show the respondents' unawareness on the related matter. 35.1% of the 476 respondents shown in Table 5.10 contribute between RM20 to RM 55 to the collection of maintenance charge, while 4.4% pays between RM56 to RM90. 12.8% of the respondents were unsure of the amount of maintenance charge contribution per month as they were amongst tenants to which matters of maintenance fees are handled by their landlords, while 29.8% do not contribute to the maintenance charge.

Table 5.10 Maintenance fee according to the strata category

Maintenance Charge	Categories of Strata Scheme						Total	
	PPR		Low Cost		Medium Low Cost		F	%
	F	%	F	%	F	%		
1 Not Sure	7	1.5	49	10.3	5	1.1	61	12.8
2 No Maintenance Fee	142	29.8	0	0.0	0	0.0	142	29.8
3 RM20-RM55	17	3.6	112	23.5	38	8.0	167	35.1
4 RM56-RM90	4	0.8	0	0.0	17	3.6	21	4.4
5 RM91-RM100	0	0.0	0	0.0	78	16.4	78	16.4
6 RM101-RM200	0	0.0	0	0.0	7	1.5	7	1.5
Total	170	35.7	161	33.8	145	30.5	476	100.0

Majority of the respondents' exact maintenance fee ranges between RM 35 to RM 50 as illustrated in Figure 5.4, which is within similar range to published reports and studies made in regards to low-cost high-rise residential.

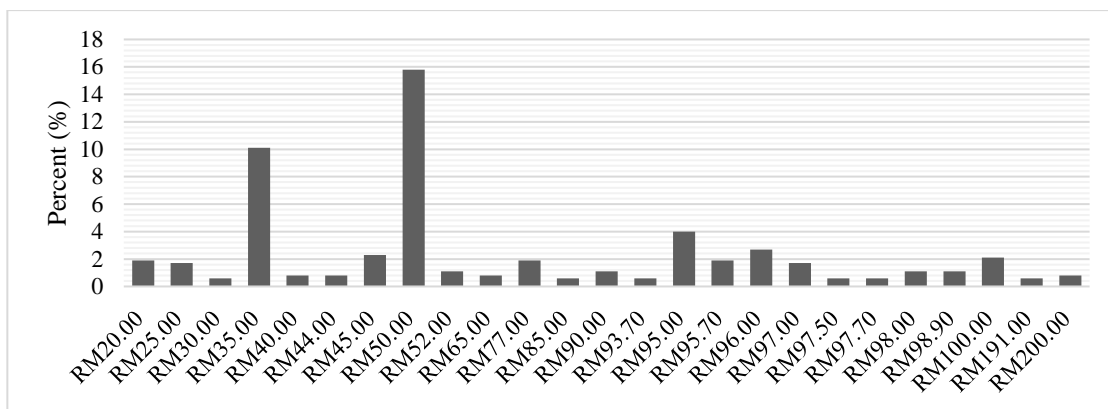


Figure 5.4 Percentage (%) distribution of maintenance fee

However, the survey found that (see Table 5.11) significant percentage of the respondents perceived that the charged maintenance fee amount is unfair, despite being within the standard range for low-cost housing maintenance fee between RM20 to RM55.

Table 5.11 Respondents' perception towards maintenance fee

Fee Amount	Unfair maintenance Fee				Total	
	Yes		No			
	F	%	F	%	F	%
Not Sure	48	10.1	13	2.7	61	12.8
No Maintenance Fee	142	29.8	0	0.0	142	29.8
RM20-RM55	129	27.1	38	8.0	167	35.1
RM56-RM90	18	3.8	3	0.6	21	4.4
RM91 - RM100	50	10.5	28	5.9	78	16.4
RM101-RM200	7	1.5	0	0.0	7	1.5
Total	394	82.8	82	7.2	476	100.0

Based on the collected maintenance fee amount, this section further analyses the whether the maintenance fee is influenced by whether the strata scheme is a walk-up or ones with lifts services. The correlation in following Table 5.12 shows very weak correlation between the two variables, maintenance fee and number of lifts, $r=.033$ and $p=0.000$.

Table 5.12 Maintenance Fee and lift or walk-up relationship

Criteria	Maintenance Fee		
	Correlation Coefficient	Sig. (2tailed)	F
Number of lifts	0.333**	.000	476

In practical terms, the result suggests that there is little to no linear relationship between the maintenance fee and the number of lifts in the analysed data. This also means that the difference in the number of lifts do not appear to have a significant impact on the maintenance fees charged for these properties. Forward to further comprehend the weak relationship between variables, further ANOVA analysis was conducted to asses on the dependency between variables, between the maintenance fee and lift service:

H0: There is no significant difference between the maintenance fee with lifts availability.

H1: There is a significant difference between the maintenance fee with lifts availability.

Since homogeneity of variances was violated with $p < 0.05$, Welch test was done to compare two means to see if they are equal.

Table 5.13 Descriptive analysis on maintenance fee and lifts services

	Maintenance Fee (Mean)							
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
With Lifts	298	2.04	1.500	.087	1.87	2.21	0	5
Walk-up	178	1.56	0.664	.050	1.46	1.65	0	2
Total	476	1.86	1.276	.058	1.75	1.98	0	5

	Statistic ^a	df1	df2	Sig.
Welch	23.698	1	443.573	.000

a. Asymptotically F distributed.

The result of Robusts Test of Equality table above shows significant difference between groups where the significance value is $p < 0.05$, therefore, the null hypothesis is rejected as there is significant difference between the groups of maintenance fee and lift availability.

This section then further analyses the respondents' perception on what other factors that according to literature weighs more in determining the maintenance fee compared to the existence of life services. Responses from the survey were recorded in Table 5.14.

Table 5.14 Factors influencing maintenance fee

Factors	Strongly Disagree (Score of 1)		Disagree (Score of 2)		Agree (Score of 3)		Strongly Agree (Score of 4)		Σ RII Score	Σ F	Mean	Rank
	F	RII	F	RII	F	RII	F	RII				
Building condition	20	20	18	36	346	1038	92	368	1462	476	3.071	1
Common Facilities Available	19	19	43	86	321	963	93	372	1440	476	3.025	2
Management Cost	16	16	49	98	339	1017	72	288	1419	476	2.981	3
Size of Stara Scheme	23	23	42	84	332	996	79	316	1419	476	2.981	4
Location of Strata Scheme	20	20	42	84	348	1044	66	264	1412	476	2.966	5
Common Facility condition	26	26	32	64	352	1056	66	264	1410	476	2.962	6
Parcel Size	19	19	50	100	338	1014	69	276	1409	476	2.960	7
Building Life / age	23	23	31	62	369	1107	53	212	1404	476	2.950	8
Discounts or Payment Structure	24	24	68	136	309	927	75	300	1387	476	2.914	9

The result shown in above tables indicates that the building condition has the highest mean, where majority of the respondents agreed that maintenance fee is influence by the building condition (mean = 3.071), followed by provided common

facilities (mean = 3.021) and sharing the same mean result at 2.981 are the maintenance cost and the size of strata scheme. These findings are similar to literature findings on maintenance cost as well as its consistency with the calculation of maintenance fee according to the allocated share units' aggregates, that is calculated by including the total area of parcel and the accessory parcel into the share unit formula.

5.3.3 Satisfaction

This section discusses on the respondents' satisfaction on the management and maintenance practices within their strata schemes. A ranking of mean score approach was done through the Relative Importance Index (RII) analysis and the result is shown in Table 5.15. The mean result shows that on the average are satisfied with the condition of the facilities provided amongst those with active management, but at a low satisfaction of means ranging between 2.342 to 2.871. The responses show that on the condition of multipurpose hall are perceived to be of a higher satisfaction with a mean score of 3.069 compared to other common facilities.

Table 5.15 Satisfaction towards common facilities with active management

Facilities	Active Strata Management								Σ RII Score	Σ F	Mean	Rank
	Strongly Dissatisfied (Score of 1)		Dissatisfied (Score of 2)		Satisfied (Score of 3)		Strongly Satisfied (Score of 4)					
	F	RII	F	RII	F	RII	F	RII				
Multipurpose Hall	3	3	110	220	177	531	146	584	1338	436	3.069	1
Garbage House	3	3	135	270	114	342	96	384	999	348	2.871	2
Pigeon Hole	11	11	180	360	123	369	79	316	1056	393	2.687	3
Prayer Hall (Surau)	36	36	178	356	191	573	71	284	1249	476	2.624	4
Parking	31	31	191	382	183	549	71	284	1246	476	2.618	5
Lifts	35	35	145	290	92	276	75	300	901	347	2.597	6
Playground	24	24	157	314	109	327	59	236	901	349	2.582	7
Multipurpose Court	38	38	187	374	108	324	83	332	1068	416	2.567	8
Staircase	90	90	172	344	158	474	56	224	1132	476	2.378	9
Outdoor Open Space	67	67	230	460	128	384	51	204	1115	476	2.342	10

Hence, a Spearman correlation test made, to further understand the in-depth relationship between respondents' satisfaction level and the maintenance fee.

Table 5.16 Maintenance Fee and satisfaction level

Satisfaction level towards Common Facilities	Maintenance Fee (RM)	
	CC	p-value
Multipurpose Hall	-0.573**	0.000
Garbage House	0.034	0.461
Pigeon Hole	-0.143**	0.002
Prayer Hall (Surau)	-0.186**	0.000
Parking	0.633	0.173
Lifts	-0.019	0.681
Playground	-0.077	0.095
Multipurpose Court	-0.284**	0.000
Staircase	-0.146**	0.001
Outdoor Open Space	-0.274**	0.000

Based on the correlation result in Table 5.16, the negative low relationship between satisfaction of multipurpose hall (-0.573), pigeon hole (-0.143), prayer hall (-0.186), multipurpose court (-0.284), staircases (-0.146) as well as outdoor open space (-0.274) with the maintenance fee, it can be thus far concluded that the higher maintenance fee rates, the less satisfied the respondents are towards these facilities. While there is significant relationship between maintenance fee and the selected listed facilities, the satisfaction level was further tested using ANOVA test. ANOVA test was done to test the following hypothesis:

H0: There is no significant difference in satisfaction between the type of original proprietor (public / private).

H1: There is a significant difference in satisfaction between the type of original proprietor (public / private).

The results in Table 5.17 shows a significant difference between groups where the F value (1,474= 152.4), $P < 0.05$, therefore, the null hypothesis is rejected as there is

significant difference between the type of scheme being public or private strata scheme. The result shows that those residing in public strata schemes has higher satisfaction level compared to those in public.

Table 5.17 Descriptive analysis on the strata scheme status and ANOVA test

	Mean_Satisfaction rate of facility satisfaction							
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
Public	170	2.6455	.66324	.05087	2.5450	2.7459	1.09	4.00
Private	306	1.9305	.57092	.03264	1.8663	1.9947	.45	3.55
Total	476	2.1858	.69528	.03187	2.1232	2.2484	.45	4.00

ANOVA	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	55.865	1	55.865	152.400	.000
Within Groups	173.755	474	.367		
Total	229.620	475			

Based on the distribution of the respondents that included both strata owners and tenants, this section further compares in the next Table 5.18 on whether significant difference exists between satisfaction and type ownership (owner / tenant):

H0: There is no significant different between satisfaction and the type of tenancy.

H1: There is a significant different between satisfaction and the type of tenancy

Table 5.18 Descriptive analysis on the strata scheme status and ANOVA test

	Mean_Satisfaction rate of facility satisfaction							
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
Owner	336	2.0455	.66608	.03634	1.9740	2.1169	.45	4.00

	Mean Satisfaction rate of facility satisfaction							
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
Tenant	140	2.5227	.64864	.05482	2.4143	2.6311	1.18	3.64
Total	476	2.1858	.69528	.03187	2.1232	2.2484	.45	4.00

ANOVA	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	22.511	1	22.511	51.520	.000
Within Groups	207.110	474	.437		
Total	229.620	475			

The result of ANOVA table above shows a significant difference between groups where the F value (1,474= 51.52), $p < 0.05$, therefore, the null hypothesis is rejected as there is significant difference between the type of tenancy. The result shows that resident tenants tend to be more satisfied than owners.

Further analysis on satisfaction was made in Table 5.19 showing RII mean result analysis made on respondents' satisfaction towards the management of safety aspects.

Table 5.19 Satisfaction in regards overall management

Facilities	General Safety Aspects								Σ RII Score	Σ F	Mean	Rank
	Strongly Dissatisfied (Score of 1)		Dissatisfied (Score of 2)		Satisfied (Score of 3)		Strongly Satisfied (Score of 4)					
	F	RII	F	RII	F	RII	F	RII				
Building condition	28	28	110	220	282	846	56	224	1318	476	2.769	1
Common facilities	33	33	104	208	290	870	49	196	1307	476	2.746	2
Emergency exits	31	31	132	264	268	804	45	180	1279	476	2.687	3
Playground area	40	40	146	292	220	660	70	280	1272	476	2.672	4
Surrounding safety and cleanliness	43	43	141	282	237	711	55	220	1256	476	2.639	5

The result in Table 5.19 shows that the respondents are most satisfied with overall building condition (mean = 2.769), followed by common facilities (mean = 2.746). On the contrary, the safety and cleanliness of the surrounding area were ranked least satisfactory (mean = 2.639) amongst the 5 safety aspects. This is similar with secondary findings that observes poorly managed and maintained safety and cleanliness of the strata surrounding have impacted the residents in many ways. Safety of unsupervised children and passer-by adults are at risk of falling into uncovered drainages or poorly maintained playgrounds. Irresponsible littering and wastes disposal have also been reported to have caused the rise of dengue diseases within residential developments. Thus, such negative perception of the respondents towards the safety and cleanliness aspect is profound and justified.

5.3.4 Awareness

The strata management act included the roles and responsibilities of both the parcel owners as well as the management. One of the responsibilities of a residing parcel owner is to attend the annual general meeting and other general meetings as convened by the management office. Hereafter are questions that enquires reasons for residents' participation in annual general meetings (AGM). The responses in Table 5.20 shows that 55.5% of the respondents were found absent from AGM, compared to those admitting to have attended the AGM, 41.4%.

Table 5.20 AGM Attendance and Absence

Criteria	Annual General Meeting	
	F	%
Attended	197	41.4
Absent	264	55.5
No information	15	15

The respondents were further asked on the cause of their absence during the AGM. The responses include being new, working, following a shift schedule, not being

a member, being unaware, having outstanding payments, job constraints, not encouraged to speak, health issues, not receiving an invitation, being busy with family matters, and not having time, among others.

Survey questions also enquired the respondents' awareness on the common properties and parties responsible for repairs in relation to the common properties. Types of common damages and repair works in strata building were identified from various literature. The responses were analysed using RII mean analysis, and the results are shown in Table 5.21.

Table 5.21 Damages and/or repair works within jurisdiction of the management body

Facilities	Damages and Repairs								Σ RII Score	Σ F	Mean	Rank
	Strongly Disagree (Score of 1)		Disagree (Score of 2)		Agree (Score of 3)		Strongly Agree (Score of 4)					
	F	RII	F	RII	F	RII	F	RII				
Water tank	18	18	65	130	226	678	167	668	1494	476	3.139	1
Surau / Prayer Hall	34	34	49	98	213	639	180	720	1491	476	3.132	2
Clogged Pipe	34	34	32	64	252	756	158	632	1486	476	3.122	3
Garbage House	37	37	47	94	226	678	166	664	1473	476	3.095	4
Manhole	45	45	40	80	226	678	165	660	1463	476	3.074	5
Apron / General drainage	29	29	56	112	244	732	147	588	1461	476	3.069	6
Playground	34	34	58	116	229	687	155	620	1457	476	3.061	7
Vandalism	39	39	54	108	226	678	157	628	1453	476	3.053	8
Leaks between walls /ceiling	30	30	64	128	239	717	143	572	1447	476	3.040	9
Sewer Pipe	25	25	60	120	273	819	118	472	1436	476	3.017	10
Compound Fencing	45	45	44	88	252	756	135	540	1429	476	3.002	11
Roofing	59	59	31	62	237	711	149	596	1428	476	3.000	12

Facilities	Damages and Repairs								Σ RII Score	Σ F	Mean	Rank
	Strongly Disagree (Score of 1)		Disagree (Score of 2)		Agree (Score of 3)		Strongly Agree (Score of 4)					
	F	RII	F	RII	F	RII	F	RII				
External wall	38	38	59	118	258	774	121	484	1414	476	2.971	13
Unit windows	41	41	112	224	233	699	90	360	1324	476	2.782	14

Based on the results in the above table, the respondents by majority can be deemed as being aware on the type of repairs that requires the management's attention, as the result shows the lowest mean, 2.782, unit windows to be the parcel owner's responsibility instead of the management. This analysis is a reflection of respondents' awareness and understanding on which elements are considered a common property and which falls within parcels where majority of the damages ranges above the score of 3, where majority agrees that the listed damages are under the responsibility of the management to repair and make good.

Following this preliminary observation of the respondents' understanding in identifying common properties, the study further analyses the source of knowledge in relation to matters of strata management administration and act. Table 5.22 shows that from the respondents' perception,

Table 5.22 Respondents' perceived Responsibilities fulfilment by management bodies

Roles and responsibilities									Σ RII Score	Mean	Rank
	Strongly Disagree (Score of 1)		Disagree (Score of 2)		Agree (Score of 3)		Strongly Agree (Score of 4)				
	F	RII	F	RII	F	RII	F	RII			
Convening AGM to solve related issues	10	10	28	56	269	807	169	676	1549	3.254	1
Prepare strata roll	5	5	14	28	333	999	124	496	1528	3.210	2

Roles and responsibilities									Σ RII Score	Mean	Rank
	Strongly Disagree (Score of 1)		Disagree (Score of 2)		Agree (Score of 3)		Strongly Agree (Score of 4)				
	F	RII	F	RII	F	RII	F	RII			
Maintain strata roll	5	5	23	46	324	972	124	496	1519	3.191	3
Plan and manage maintenance expenses	10	10	27	54	302	906	137	548	1518	3.189	4
Fulfilling notices from authority	5	5	21	42	331	993	119	476	1516	3.185	5
Managing account and expenses	5	5	41	82	300	900	130	520	1507	3.166	6
Maintaining common property	5	5	51	102	286	858	134	536	1501	3.153	7
Asses and procure services	5	5	37	74	318	954	116	464	1497	3.145	8
Managing building insurance	5	5	27	54	353	1059	91	364	1482	3.113	9
Enforcements taken against noncompliance of residents	22	22	35	70	288	864	131	524	1480	3.109	10
Establish finance team	10	10	57	114	283	849	126	504	1477	3.103	11
Convening AGM	10	10	55	110	290	870	121	484	1474	3.097	12
Fulfil duties and by-laws	17	17	41	82	317	951	101	404	1454	3.055	13
Collect maintenance charge	8	8	87	174	266	798	115	460	1440	3.025	14

The survey also included respondents' experience on dispute instances.

Table 5.23 Instances of disputes between respondents and management

Dispute Instances	Yes		No		Total	
	F	%	F	%	F	%
Poor response by management	264	55.5	212	44.5	476	100.0
Dispute over matters	149	31.3	327	68.7	476	100.0

The disputes over complaints or reports were usually amongst the following Figure 5.5. the result shows that parking management, leakage and matters of maintenance fee are three most common complaints amongst respondents. Dissatisfaction over limited parking space is one of the most common issues in low-cost housing and has been publicly discussed including in published reports and studies. Consistent with findings from COB dataset, disputes or dissatisfaction over maintenance fee are common, which may be due to unfair charge, refusal to pay, and / or delay in payment that to some extent requires COB intervention or claims with tribunal and even seize of mobile properties for auction. On the other hand, while several studies highlight issue relating to poor and inefficient lift services, this study shows a different result. This difference may be due to the percentage of respondents involve in this study includes walk-up strata, which explains the lack of issues or dispute relating to lift maintenance compared to commonly discussed lift services in other low-cost high-rise studies.

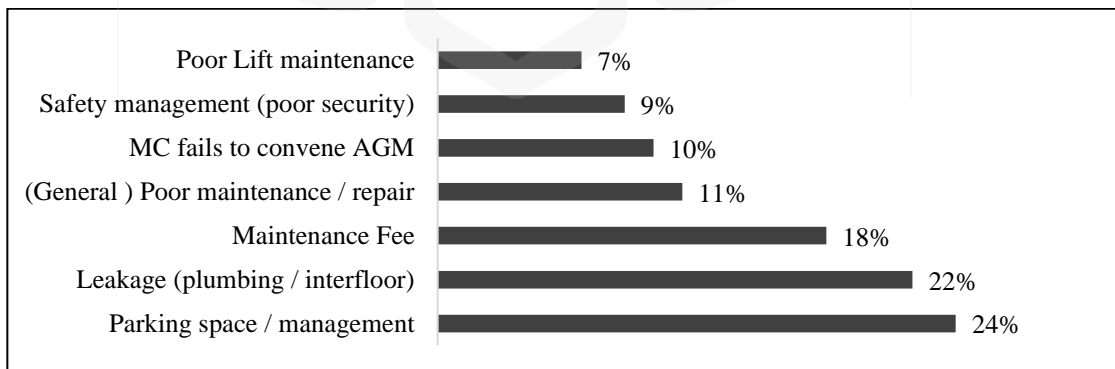


Figure 5.5 Matters of complaints and disputes

Occupied with basic awareness and understanding on the responsibilities as stipulated under the strata management act, the respondents were asked on their source of information on strata management. The findings presented in Table 5.24 indicate that the majority of respondents rely on management offices as their primary source of information regarding strata management practices, roles, and responsibilities. Some respondents also turn to social media or consult with family and friends for information on these topics.

Table 5.24 Point of reference on strata management

Roles and responsibilities	Agree (Score of 1)		Disagree (Score of 2)		Σ RII Score	Mean	Rank
	F	RII	F	RII			
Management office	191	191	281	562	753	1.595	1
Family Members / Colleagues	321	321	151	302	623	1.320	2
Neighbours	359	359	113	226	585	1.239	3
Online Forum / media Social	391	391	81	162	553	1.172	4

5.3.5 SUMMARY OF RESIDENTS' SURVEY

Based on the findings involving residents of low-cost, low-medium cost and PPR residents, partial conclusion is achieved. The most significant finding is that consistent to the findings from COB dataset, matters related to maintenance fee are significantly common even from the perspective of strata residents. The issues revolve around, poor collection of maintenance fee and perceived unfair charge. This conclusion was derived from several questions throughout the strata scheme. The second inference is that majority of the resident respondents are fairly aware of the direction and significance of strata management act towards the strata management, which was derived from several awareness questions as well as on their understanding on duties of the management bodies. This study further investigates perception of management bodies via another set of questionnaire survey targeting the representatives of operating management bodies.

5.4 MANAGERMENTS' RESPONSE ANALYSIS

Another set of questionnaire survey was also distributed targeting representatives of strata management bodies of amongst the low-cost and low-medium cost strata schemes. A total of 50 responses amongst management representatives were collected and analysed for this assessment.

5.4.1 Respondents' Background

The first section of the survey targeting representatives of strata management bodies, were questions on the type of management, the strata category the office is managing, their location, number of units, and number of lifts.

The responses in Table 5.25 shows a partially equal percentage of respondents from JMB and MC representatives, respectively 48% and 50% of the respondents, while the remaining 2% was from a managing agent. 62% of the respondents were those from low-cost strata and 38% from low-medium cost strata. Majority of the respondents are operating their management in strata schemes located within the MB Kajang (42%), MB Petaling Jaya (34%) and within MB Shah Alam area (24%).

Table 5.25 Management bodies' profile

Categories	Variables	Frequency	%
Type of Management	Joint Management Body (JMB)	24	48.0
	Management Corporation (MC)	25	50.0
	Managing Agent	1	2.0
Strata Scheme Category	Low-cost	31	62.0
	Low-medium cost	19	38.0
Location	Majlis Bandaraya Kajang	21	42.0
	Majlis Bandaraya Shah Alam	12	24.0
	Majlis Bandaraya Petaling Jaya	17	34.0
Number of Blocks	1 - 5 Blocks	44	88.0

Categories	Variables	Frequency	%
	6 - 10 Blocks	4	8.0
	10-15>Blok	2	4.0
Number of units	1 – 200 units	30	60.0
	201 – 400 units	9	18.0
	401 – 600 units	8	16.0
	601 – 800 units	2	4.0
	801 – 1,000 units	1	2.0
	Walk-up high-rise (No lifts)	37	74.0
Number of Lifts	1-2 lifts	6	12.0
	3-4 lifts	5	10.0
	5-6 lifts	1	2.0
	7-8 lifts	1	2.0

The above table shows that 88% of the respondents are management bodies that are currently managing strata schemes between 1 to 5 blocks, 60% managing strata with less than 200 units, 18% managing between 201 and 400 units and 16% managing 401 to 600 units strata scheme. While 74% of the strata schemes are walk-up strata, or strata without lift services.

The second part of the strata profile are questions relating to the vacant possession and issuance date of CCC. These two details are significant in determining approximate building age for further analysis. Based on the responses shown in Table 5.26, according to the CCC record, 14% of the respondents are managing strata building developed between 1996 to the year 2000, similarly, 14% are managing strata schemes that were developed between the year 2016 and 2020.

Table 5.26 Building age according to delivery of VP and issuance of CCC

Variables	Description	Strata Scheme Category				Total	
		Low Cost		Low-Med Cost		F	%
		F	%	F	%		
Vacant Possession (Years)	No Information (No record from previous management)	14	28	4	8	18	36
	1996-2000 Years (25 Years ago)	1	2	3	6	4	8
	2001-2005 Years (20 Years ago)	2	4	3	6	5	10
	2006-2010 (15 Years ago)	2	4	2	4	4	8

Variables	Description	Strata Scheme Category				Total	
		Low Cost		Low-Med Cost		F	%
		F	%	F	%		
	2011-2015 Years (10 Years ago)	5	10	4	8	9	18
	2016-2020 Years (5 Years ago)	7	14	3	6	10	20
Certificate of Compliance and Completion (CCC)	No Information (No record from previous management)	17	34	9	18	26	52
	1996-2000 (25 Years ago)	2	4	5	10	7	14
	2001-2005 (20 Years ago)	3	6	1	2	4	8
	2006-2010 (15 Years ago)	2	4	0	0	2	4
	2011-2015 (10 Years ago)	3	6	1	2	4	8
	2016-2020 (5 Years ago)	4	8	3	6	7	14

From another aspect of the survey, unfortunately, 36% of the respondents were not able to provide information on the delivery of VP and 52% were not able to provide information on the issuance of CCC. These responses show poor information management or documentation by the management or failure of previous management to conduct proper handing-over to the current management office. Which may be the case. Based on results in Table 5.27, 32% of the respondents that were not able to provide the CCC information were amongst the MC and 18% were the JMB, as well as the managing agent respondent (2%).

Table 5.27 Management without CCC record

CCC		Type of Management						Total	
		JMB		MC		Agent		F	%
		F	%	F	%	F	%		
1	No Information (No record from previous management)	9	18	16	32	1	2	25	
2	1996-2000 (25 Years ago)	5	10	2	4	0	0	7	
3	2001-2005 (20 Years ago)	2	4	2	4	0	0	4	
4	2006-2010 (15 Years ago)	2	4	0	0	0	0	2	
5	2011-2015 (10 Years ago)	3	6	1	2	0	0	4	
6	2016-2020 (5 Years ago)	3	6	4	8	0	0	7	
	Total	24	48	25	50	1	2	50	

Nevertheless, 26% of the participating strata schemes were developed more than 15 years ago, while the remaining of less than 20% were developed between 5 to 14 years ago. This approximate identification of building age is significant in assessing the significance of building age the imposed maintenance fee amount as well as the actual maintenance cost incurred by the management, as several concluded studies found that building age has significant impact towards the building maintenance.

5.4.2 Maintenance Fee

Forward to the next section of the survey, the respondents were enquired on the amount of maintenance fee imposed by the management towards to strata residents (owners), which generated the following results in Table 5.28.

Table 5.28 Maintenance Fee according to strata category

Maintenance Fee	Categories of Strata Scheme				Total	
	Low Cost		Medium Low Cost		F	%
	F	%	F	%		
1 RM15-RM50	24	48	13	26	37	74
2 RM51-RM100	6	12	5	10	11	22
3 RM151-RM200	1	2	1	2	2	4
Total	31	62	19	38	50	100

Based on the maintenance fee responses in the table above, 74% of the responses are were charging between RM15 to RM50 on the monthly maintenance fee, and the 48% of that range were the fee charged for the low-cost strata and 26% were the low-medium cost strata. Following this result, correlation tests were made to assess the significance between the maintenance fee and the criteria as listed in Table 5.29 below. The results show no significant relationship between maintenance fee and number of units, number of lifts nor the number of parking space provided.

Table 5.29 Maintenance fee Correlations

Criteria	Maintenance Fee		
	CC	Sig. (2tailed)	F
Building age	-0.082	0.570	50
Number of Units	-0.205	0.153	50
Number of Lifts	0.266	0.062	50
Number of Parking	-0.064	0.661	50

Upon learning the above outcome, an ANOVA test was made to further test whether lift service has significant relationship with the charged maintenance fee:

H0: There is no significant difference of maintenance fee based on lifts availability.

H1: There is a significant difference of maintenance fee based on lifts availability.

Table 5.30 Descriptive analysis on maintenance fee and ANOVA test

	Mean_Maintenance Fee							
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
Walk-up	35	1.26	.611	.103	1.05	1.47	1	4
Lifts	15	1.53	.834	.215	1.07	2.00	1	4
Total	50	1.34	.688	.097	1.14	1.54	1	4

ANOVA	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.801	1	.801	1.715	.197
Within Groups	22.419	48	.467		
Total	23.220	49			

The ANOVA table above showed that there is no significant difference of maintenance fee based on lifts availability, as the p-value is $p > 0.05$, therefore, we fail to reject the null hypothesis as there is no significant difference between the groups of

lifts availability. Forward, survey responses on the factors influencing the maintenance fee were analysed using RII mean calculation, and the results are shown in Table 5.31.

Table 5.31 Factors influencing maintenance fee

Factors	Strongly Disagree (Score of 1)		Disagree (Score of 2)		Agree (Score of 3)		Strongly Agree (Score of 4)		Σ RII Score	Mean	Rank
	F	RII	F	RII	F	RII	F	RII			
Building Condition	1	1	1	2	14	42	34	136	181	3.620	1
Condition of Common Properties	0	0	0	0	19	57	31	124	181	3.620	2
Building Life	1	1	2	4	18	54	29	116	175	3.500	3
Parcel Size	0	0	2	4	21	63	27	108	175	3.500	4
Management Cost	0	0	0	0	28	84	22	88	172	3.440	5
Provided Common Facilities	0	0	0	0	28	84	22	88	172	3.440	6
Size of Strata Scheme	0	0	1	2	30	90	19	76	168	3.360	7
Location of Strata Scheme	1	1	5	10	19	57	25	100	168	3.360	8
Discounts / Payment Structure	0	0	15	30	18	54	17	68	152	3.040	9

Based on the respondents' experience, the condition of the strata building and the condition of the common properties is the greatest determining factor in determining the maintenance fee, both producing RII mean of 3.620. Followed by the building age and the parcel size (mean = 3.500), followed by mean of 3.440, the management cost and common facilities provided. The result can also be analysed that the importance and the influence of these factors has over maintenance fee are not far off from each other

by comparison of the mean scores considering all factors has a mean of above the score of 3, closer to rounding up to score of 4 signifying a strong agreement to its influence.

5.4.3 Reoccurring Repairs and Cost Impacts

The survey also included a question of reported damages received by the management, and which required the most frequent repairs, where the result was analysed using RII mean calculation. Based on the results in Table 5.32, the clogged plumbing was considered to one of the several reoccurrence maintenance issue that requires most frequent repair works at mean value of 2.980, followed by roofing damages (mean = 2.820), sewer pipes (mean = 2.820).

Table 5.32 Reoccurring damages and required repairs

Type of repairs / maintenance	Very Seldom (Score of 1)		Less Frequent (Score of 2)		Frequent (Score of 3)		Very Frequent (Score of 4)		Σ RII Score	Mean	Rank
	F	RII	F	RII	F	RII	F	RII			
Clogged Plumbing	3	3	10	20	22	66	15	60	149	2.980	1
Roofing	2	2	16	32	19	57	13	52	143	2.860	2
Sewer Pipe	5	5	17	34	10	30	18	72	141	2.820	3
Manhole	5	5	17	34	11	33	17	68	140	2.800	4
Leakage	3	3	21	42	16	48	10	40	133	2.660	5
General Drainage	11	11	17	34	10	30	12	48	123	2.460	6
Vandalism	12	12	19	38	7	21	12	48	119	2.380	7
Rainwater down pipe	12	12	16	32	16	48	6	24	116	2.320	8
Garbage House	10	10	20	40	16	48	4	16	114	2.280	9
Water Tank	12	12	21	42	11	33	6	24	111	2.220	10
External wall	10	10	33	66	1	3	6	24	103	2.060	11
Surau / Prayer Hall	26	26	20	40	1	3	3	12	81	1.620	12
Playground	24	24	22	44	4	12	0	0	80	1.600	13

Based on the results shown in table above, it can be preliminary concluded that repairs relating to plumbing and waste sewer relating to clogged or leakages is considered frequent damages considering their mean values as nearing to the score of 3. These reoccurring maintenance issues were further analysed whether the building age has significant relationship causing the frequent repairs. However, the results tabulated in Table 5.33 shows that there is no significant relationship between the damages and the building age, while there is a weak significance between the strata category and the damages.

Table 5.33 Correlation between frequent damages and building age

	Building Age			Strata Category		
	CC	Sig. (2tailed)	F	CC	Sig. (2tailed)	F
Clogged Plumbing	0.206	0.151	50	-0.269	0.059	50
Sewer Pipe	-0.131	0.364	50	-0.023	0.873	50
Manhole	-0.236	0.099	50	-0.089	0.539	50
Roofing	0.178	0.216	50	0.129	0.371	50
Vandalism	-0.100	0.489	50	-0.385**	0.006	50
Garbage House	0.132	0.359	50	0.032	0.825	50
Rainwater down pipe	-0.184	0.202	50	0.082	0.573	50
General Drainage	-0.089	0.537	50	-0.143	0.323	50
Leakage	-0.054	0.707	50	0.070	0.630	50
Water Tank	-0.118	0.419	50	-0.109	0.457	50

There is no correlation between type of damages and the building age, while there is a weak correlation between damages due to vandalism and the strata category. Forward, a question on the amount spent in maintaining the strata building shows the following outcome in Table 5.34, excluding the majority respondents that had no records of the annual maintenance expenditure, five of the respondents recorded more than RM35,000 for as their annual maintenance expenses, six respondents had less than

RM10,000 annual expenditure, whilst the remaining four spent between RM20,000 to RM35,000 on maintenance expenditure based on their yearly records.

Table 5.34 Annual maintenance expenditure

Maintenance Expenditure	Categories of Strata Scheme				Total	
	Low Cost		Medium Low Cost		F	%
	F	%	F	%		
RM1-RM5,000	1	2	3	6	4	8
RM5,001-RM10,000	2	4	0	0	2	4
RM20,001-RM25,000	2	4	0	0	2	4
RM30,001-RM35,000	1	2	1	2	2	4
RM35,001-RM40,000	1	2	0	0	1	2
RM45,001-RM50,000	2	4	2	4	4	8
No information due to Poor record	22	44	13	26	35	70
Total	31	62	19	38	50	100

Table 5.35 shows the RII mean result of maintenance / management component with the highest cost implication. General maintenance and repairs were found to have highest cost impact towards the overall maintenance cost (mean 3.400), followed by the costs incurred by to operate the office at mean score of 3.240. The difference in mean score between the top two ranked components, shows quite a gap between the two mean scores and neither were closer to rounding up to score of 4. This implies that the respondents may have different opinions of the components with the highest cost impacts. Though general repair shows higher accumulated RII, the individual maintenance components do suggest that some strata schemes incurred more costs in maintaining or repairing components like sewage system or addressing account auditing matters.

Table 5.35 Mean score for maintenance / management with most cost impact

Maintenance / management component	Strongly disagree		Disagree		Agree		Strongly Agree		Σ RII Score	Mean	Rank
	F	RII	F	RII	F	RII	F	RII			
General repair and maintenance	0	0	5	10	20	60	25	100	170	3.400	1
Management Office Costs	1	1	5	10	25	75	19	76	162	3.240	2
Auditing Fee	5	5	2	4	20	60	23	92	161	3.220	3
Staffing	2	2	4	8	26	78	18	72	160	3.200	4
Electrical system Maintenance	3	3	3	6	26	78	18	72	159	3.180	5
Waste management	3	3	6	12	23	69	18	72	156	3.120	6
Sewage System	7	7	6	12	15	45	22	88	152	3.040	7
Housekeeping Service	3	3	6	12	28	84	13	52	151	3.020	8
Maintenance of Fire Fighting System	5	5	6	12	23	69	16	64	150	3.000	9
Parking Space / management	9	9	10	20	20	60	11	44	133	2.660	10
Landscape Area	16	16	8	16	16	48	10	40	120	2.400	11
Security Body	18	18	5	10	18	54	9	36	118	2.360	12
Lift Service	26	26	0	0	7	21	17	68	115	2.300	13
Pest Control	18	18	9	18	19	57	4	16	109	2.180	14

Further analyses significant relationship between the maintenance works and the costs as well as the building age. Result in Table 5.36 shows very weak significance of selected maintenance works and the overall annual maintenance costs. However, there are significant relationship between frequent maintenance and damages with the building age, especially maintenance involving fire-fighting system, safety and security and pest control.

Table 5.36 Correlation between frequent damages and building age

	Maintenance /Management Cost			Building Age		
	CC	Sig. (2tailed)	F	CC	Sig. (2tailed)	F
General repair and maintenance	0.124	0.389	50	-0.102	0.483	50
Maintenance of Fire Fighting System	0.101	0.485	50	0.262	0.066	50
Maintenance of Fire Fighting System	0.173	0.229	50	0.427**	0.022	50
Lift Service	0.105	0.467	50	0.134	0.353	50
Security Body	0.367**	0.009	50	0.539**	0.000	50
Sewage System	0.065	0.655	50	0.121	0.402	50
Waste management	-0.020	0.892	50	-0.121	0.404	50
Parking Space / management	0.302*	0.033	50	0.293*	0.039	50
Pest Control	0.311*	0.028	50	0.458**	0.001	50
Housekeeping Service	0.213	0.138	50	0.292*	0.040	50
Landscape maintenance	0.269	0.058	50	0.348*	0.13	50
Auditing Fee	0.037	0.798	50	0.000	0.999	50
Management Office Costs	-0.100	0.488	50	-0.108	0.455	50
Staffing	0.042	0.770	50	-0.102	0.483	50

Thus far, it can primarily conclude that though literature studies highlight the influence of building age towards the building maintenance and its costs in general, there are still other aspects of strata management that requires further assessment aside from the building maintenance, this includes the general condition of the strata building as well as the condition of the common properties itself. Hence this study further investigates other critical aspects of strata management, especially the administrative and legislative aspects.

5.4.5 Challenges

This section analyses the responses made by respondents in regards to the challenges faced in maintaining and managing the strata scheme. Upon understanding the practicing approaches conducted by the management through the survey, the following RII mean analysis were conducted to understand existing critical issues faced by the respondents in managing strata schemes in question and the result are as in Table 5.37 below.

Table 5.37 Mean score for critical issue in strata management

Core Elements in Strata Management	Strongly disagree		Disagree		Agree		Strongly Agree		Σ Score	Mean	Rank
	F	%	F	%	F	%	F	%			
Late Payments by residents	0	0	4	8	10	30	36	144	182	3.640	1
Collecting Management Charge & Sinking Fund	1	1	3	6	14	42	32	128	177	3.540	2
AGM Attendance	2	2	4	8	21	63	23	92	165	3.300	3
Poor state of Common Properties	0	0	15	30	9	27	26	104	161	3.220	4
Managing Accounts (Management Charge & Sinking Fund)	1	1	6	12	25	75	18	72	160	3.200	5
Transfer of Accounts	1	1	11	22	17	51	21	84	158	3.160	6
Late issuance of Strata Title	1	1	11	22	18	54	20	80	157	3.140	7
Transition of Management Bodies	3	3	6	12	23	69	18	72	156	3.120	8
Cleanliness Issue	1	1	13	26	18	54	18	72	153	3.060	9
Security Issues	1	1	7	14	32	96	10	40	151	3.020	10
Nuisance	4	4	9	18	26	78	11	44	144	2.880	11
Security Guards	4	4	8	16	29	87	9	36	143	2.860	12
Waste Management	1	1	17	34	20	60	12	48	143	2.860	12

The calculated RII mean scores in the above table showed the highest RII mean of 3.640 is the late payments by the residents, followed by the collection of management charge and the sinking fund (mean = 3.540). In comparison, based on the RII mean calculated, with RII mean of less than score of 3 are nuisance (mean = 2.880), security guards (mean = 2.860) and waste management (mean = 2.860).

Based on the result in Table 5.37, question on late contributions by the strata owners were analysed. The results in Table 5.38 shows that 74% of the respondents have experienced the said issue.

Table 5.38 Late maintenance charge contribution by strata owners

Late Maintenance Contribution	Categories of Strata Scheme				Total	
	Low Cost		Medium Low Cost		F	%
	F	%	F	%		
Yes	19	38	18	36	37	74
No	12	24	1	3	13	26
Total	31	62	19	38	50	100

Based on the 37 responses, the following analysis shows the percentage of late payment amongst respective strata schemes in Table 5.39. Amongst the 37 respondents based on respective strata schemes, 17 schemes had between 21% to 40% of late payments, 8 schemes had between 41% to 60% of late contributions whilst only 3 respondents experienced between 1% to 20% of late payments and only 1 respondent experienced of more than 80% of late contribution.

Table 5.39 Percentage of late payment of maintenance fee by strata owners / residents

Percentage of late contribution within strata scheme	Categories of Strata Scheme				Total	
	Low Cost		Medium Low Cost		F	%
	F	%	F	%		
No Issue on late payment	12	24	1	2	13	26

Percentage of late contribution within strata scheme	Categories of Strata Scheme				Total	
	Low Cost		Medium Low Cost			
	F	%	F	%	F	%
1 – 20%	2	4	1	2	3	6
21 – 40%	4	8	13	26	17	34
41 -60%	5	10	3	6	8	16
61 – 80%	7	14	1	2	8	16
81 -100%	1	2	0	0	1	2
Total	31	62	19	38	50	100

Forward, respondents were enquired on the methods to encourage collection and payment of maintenance charges from the strata owners. The variance in practices is shown in Figure 5.6, in which, by majority, 46% issued warnings, introduced interest rates for each delayed periods as well as involvement of the Strata Management Tribunal, 19% of the respondents took no actions to improve or to reduce the late payment issue, 16% of the response manages by utilizing other financial backups, while 5% of the respondents even resolute to initiating other sources or recovered using internal financial sources.

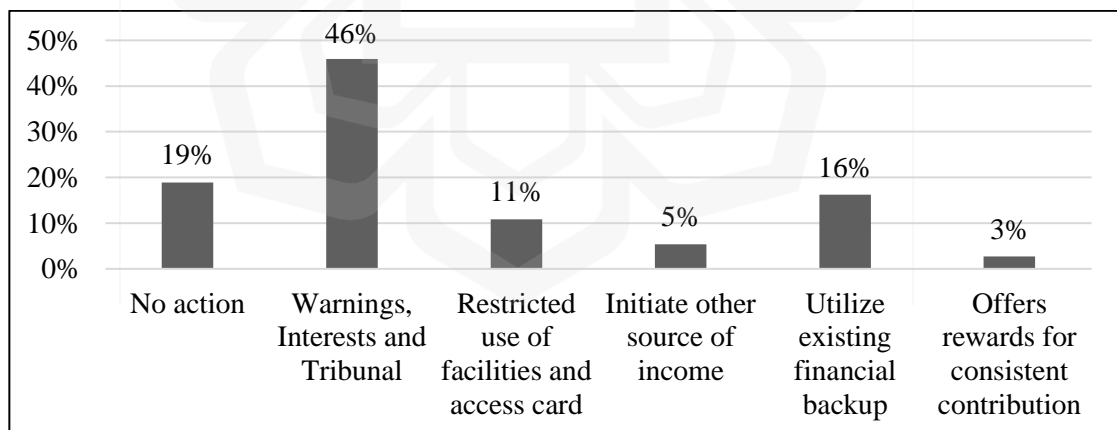


Figure 5.6 Late payment recovery alternatives

5.4.6 SUMMARY MANAGEMENT'S SURVEY

The key results based on the survey analysis amongst management bodies' representatives shows that even though building age, condition and the condition of common properties were considered to have highest influence in determining the maintenance fee, there were no significant between the tested variable. Similar to the finding from residents' survey, the managements' survey analysis pointed late payment and poor collection of maintenance fee as one of the most critical and common issue.

Based on the analysed data, the coming section of this study proceed to integrate the collective findings gathered from all data sources to reach its conclusion. Subsequently, it summarizes the outcomes and emphasize pertinent recommendations aimed at enhancing strata management practices in Malaysia.

5.5 TRIANGULATION AND DISCUSSION

Highly discussed issues in strata management and maintenance include matters like poor maintenance amongst the low-cost strata schemes, the issue of determining the maintenance fee, inconsistency between maintenance fee and satisfaction as well as inconsistency between owners' awareness and reoccurring damages and repairs. These are the commonly discussed, however, this study further analysed these matters in from various perspectives, scrutinising collected and analysed data from published literature, reports, COB's database, as well as conducted surveys involving the strata residents, owners and the management bodies.

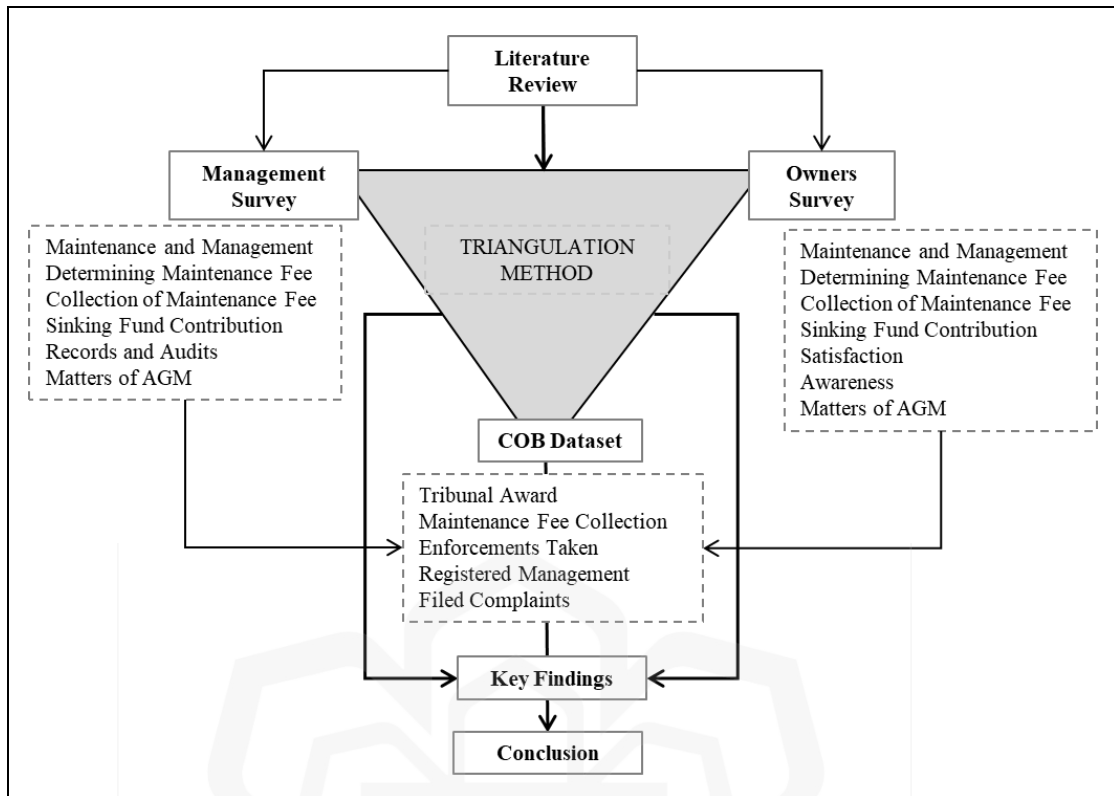


Figure 5.7 Triangulation of 3 sources of collected data

Based on the above figure, and through individual analysis of each data source including the dataset, resident survey, and management survey, this section rigorously outlines key findings obtained from the data analysis conducted to fulfil the study's aims and objectives. It is subdivided into three main sections:

1. Maintenance fee and cost
2. Issues and challenges
3. Awareness

These parts were based on synthesized and interpreted the data analysis findings to achieve respective objectives.

5.5.1 Management and maintenance costs

This section emphasizes the study outcomes on maintenance costs' determination and the maintenance fee charged by the management office.

5.5.1.1 Management Direct and Indirect Cost

Direct cost as recommended by El-Haram & Horner (2002) includes cost that are directly impacting the maintenance works, such as labour costs, materials and equipment and tools that are required to fulfil the work at hand. The amount of labour, materials and necessary tool for any repair or maintenance work relies on the condition of the said building, or the damages sustained by the property. Building characteristics, condition, regulations, users and awareness were amongst the factors highlighted by Ali et al. (2010), to further investigate whether the factors are consistent in present time, this study is necessary.

The owners responded in the survey shows showing that the building condition and common facilities provided, which are both considered as direct costs, were ranked the top two factors influencing the maintenance charge, while the survey result from the management survey shows that the building condition and condition of common properties have significant influence in determining the maintenance fees (see Table 5.40). These perceptive results are similar to published reports and literature, highlighting that building characteristics or the condition is a combined impact between the design process, the building construction, workmanship and building maintenance (Miller & Muhammad Shafiq, 2022; Shoar & Payan, 2022), which also influences the building's age and future condition.

While indirect costs are expenses that covers the administrative works (El-Haram & Horner, 2002) which enables each maintenance work to be conducted efficiently are inclusive costs of management and administrative staff and resources, overheads and according to circumstances covers for loss of revenues. Based on the survey conducted, management cost was ranked as fifth most important factor in determining the maintenance charge according to the management survey, whilst owners ranked management cost as third most important maintenance fee determining factor.

Table 5.40 Key findings on factors influencing cost

Literature	Residents' Survey	Managements' Survey
1. Building characteristics (Age, Structure, Services, Materials, etc) 2. Maintenance (workmanship, management, budget planning etc) 3. Political (by-laws and regulations) 4. Tenants (Usage, accessibility, etc)	1. Building condition 2. Common Facilities Available 3. Management Cost 4. Size of Stara Scheme 5. Location of Strata Scheme 6. Common Facility condition 7. Parcel Size 8. Building Life / age 9. Discounts or Payment Structure	1. Building condition 2. Common properties condition 3. Building Life 4. Parcel Size 5. Management Cost 6. Common Facilities Available 7. Size of Stara Scheme 8. Location of Strata Scheme 9. Discounts or Payment Structure
(Ali et al., 2010; El-Haram & Horner, 2002)	See Table 5.14	See Table 5.31

The cost of management office resourcing includes auditing fee, and staffing. Accounts auditing is one of the many responsibilities of the management body under the Strata Management Act. Other administrative responsibilities of the management body under the Act also entails to prepare financial statement, to appoint an Auditor, as well as to submit audited account to the COB. Hence explains the significant amount that management cost incurred and how this amount will affect the maintenance charge imposed.

Specific correlation between number of lifts and the maintenance fee amount shows positive significant relationship, analysis shows no actual influence nor relationship between the building age and the maintenance cost amount, despite specific literature on general building management highlighted building age for having significant impact towards maintenance cost. The null hypothesis found in this study is instead parallel to various literature criticizing the lack of standard guideline or criteria in determining the maintenance fee, which in fact have been critically emphasized in

past literature that stresses on the importance of enclosing the maintenance accounts as means of justifying the maintenance fees as one of a standard method (Tawil et al., 2011; Tiun, 2006). The survey also found that a lot of the maintenance expenses were spent on general repairs and maintenance, general electricity supply and the overall management office resources. However, majority of the management failed to provide the necessary information on the annual maintenance expenditure during the survey due to the lack of information due to poor recording practice.

According to the survey findings, despite the lack of relationship between the higher building age, the higher the maintenance cost, several literatures agreed that audits on the building's physical condition are amongst the most recommended best practices in building management. Regular building audits are crucial in order to ensure that the management are able to make financial plans on the distribution of sinking fund on major refurbishment and upgrading works (Miller & Muhammad Shafiq, 2022; Swiss Life, 2017). Without this periodic building assessment, management will not be able to propose for revision on the overall maintenance budget and the maintenance charges. Hence no reliable record of building age and maintenance budget to proof the expected relationship as discussed in literature (El-Haram & Horner, 2002). The building lifespan of a high-rise building are generally between 50 to 60 years; hence the 30 years refurbishments are necessary to optimize the building lifespan.

5.5.1.2 Maintenance Fee

Upon identifying the costs incurred or the minimum estimated maintenance cost, these amounts will become the basis for maintenance charge determination by applying the share unit aggregates into the calculation. Thus, it is important to have a cost breakdown of both the direct and indirect costs as a mean to justify the imposed maintenance charge.

Based on the survey, parcel owners and residents by majority of the low-cost residents responded to pay between RM25 to RM50 as the maintenance fee, whilst majority of medium-low-cost residents responded to pay between RM75 to RM100 per

month as the maintenance fee. In comparison, the survey amongst the management representatives showed that the strata owners were charged as low as RM15 to RM200 per month on the maintenance fee, but majority of the respondents only charged between RM15 to RM50. These findings are parallel to published reports and literature, that stated maintenance fee for low cost and medium cost commonly ranges between RM30 to RM200 per month (Azlan Zambry, 2023; Gregory Ho & Hsuen, 2022; MIEA, 2020).

Table 5.41 Key findings on maintenance fee

Literature	Residents' Survey	Managements' Survey
1. Between RM30 to RM200 2. Between RM 35 to RM45	1. RM20-RM55 2. RM56-RM90 3. RM91 - RM100 4. RM101-RM200	1. RM15-RM50 2. RM51-RM100 3. RM151-RM200
(Azlan Zambry, 2023; Gregory Ho & Hsuen, 2022; MIEA, 2020)	See Table 5.10	See Table 5.28

Despite the consistency between literature and survey outcome on the maintenance charge amount, the strata owners' survey also analysed that the respondents perceived that the maintenance fee is unfair (see Table 5.11). A recent tribunal case on an unreasonable maintenance charge were filed, RM212 for an affordable housing maintenance charge in which the strata owners' collectively reported the irrational amount as the common property provided as well as their workmanship were not up to standard (Hilmi, 2023). Several literature mentioned that most parcel owners that perceived the fees to be unfair due to unjustified or unclear maintenance budget that lead up to determining the fee amount, which was also mentioned in published studies that justifying such decision during the general meeting improves parcel owners' satisfaction towards the charged fee (Tawil et al., 2011; Tiun, 2006). The much-needed justification is to adapt to the current generation of house purchasers that are more aware of their rights under the Strata Management Act as well as the rights under the Housing Developers Act 1966. This includes requiring the management body

to achieve collective agreement amongst the share unit holders in order to impose the new rates, moreover the strata owners' rights to disagree with any increment are protected under the Strata Management Act.

Hence, it is appropriate to mandate, within the Act and/or Regulation, the inclusion of Building Condition Assessments in the revised fee and cost estimations. This will enhance transparency during maintenance fee revisions and provide insight into the additional maintenance work needed to ensure the liveability of the strata building.

5.5.2 Maintenance Issue and Challenges

This section weights the study outcomes on maintenance critical issues and common challenges faced in strata management.

5.5.2.1 Building condition and quality maintenance

Consequent to quality material, workmanship and design, affects the building condition in the long run, correspondingly, quality maintenance resolves whether maintenance and damages were to take place more frequently or otherwise. Table 5.42 shows the most frequent repair works according to the managements' records.

Where majority of the respondents were from strata schemes of more than 10 years of age, thus explains the most frequent repairs involves plumbing system, roofing, leaking and drainage system. Practicing life cycle costing, which is a reflection of their maintenance strategy that may focus more on corrective maintenance rather than preventive or predictive. Preventive maintenance is known to be more cost efficient as it scheduled inspections help to reduce or avoid major failures (BRS Building Services Sdn Bhd, 2020; Ebekoziem et al., 2022; Ihsan & Alshibani, 2018; Stenström et al., 2016).

Table 5.42 Key findings on reoccurring repairs and maintenance

Literature	Managements' Survey
<ol style="list-style-type: none"> 1. Waterproofing failure 2. Piping leakages 3. Damages due to poor quality construction material, internal design, layout and plumbing system 4. Cracks in external walls 5. Dampness to concrete walls 	<ol style="list-style-type: none"> 1. Clogged Plumbing 2. Roofing 3. Sewer Pipe 4. Manhole 5. Leakage 6. General Drainage 7. Vandalism 8. Rainwater down pipe 9. Garbage House 10. Water Tank 11. External wall
(Ahmad Ezanee et al., 2015; Azian et al., 2020; Kuan, 2023; Noor Suzilawati et al., 2021; Wahi et al., 2018)	See Table 5.32

Analysed survey also found that general repair and maintenance work, maintenance of general electrical supply and the cost resourcing for management office were the three ranked the highest cost impact in maintenance (see Table 5.35). General maintenance work if not accompanied by scheduled and proper budget allocation may cause poor result on the overall management cash flow. Mainly due to the determination of maintenance charge is based on maintenance cost estimation, some management may face financial insufficiency, in addition to the challenges in procuring smooth cash flow due to delayed payments of maintenance charge, and poor contribution of sinking funds, management faces greater challenges in financial allocation for regular and major maintenance works (Miller & Muhammad Shafiq, 2022).

5.5.2.2 Maintenance fee payment and sinking fund contribution

Based on the three sources of data analysed, it can thus far be concluded that poor collection of maintenance charges is the most critical issue in strata management

practice. This outcome is based on synthesized analysis based on COB's published reports, recorded data set as well as conducted surveys involving the strata owners and the strata management representatives.

Despite restating the purpose of collecting maintenance charge, most delays of payment or refusal to pay the maintenance charge were commonly reported to be due to disagreement on the charged amount. Hence the strata management bodies continue to face difficulties in collecting the prescribed charges, to the point that it was necessary to file for or Tribunal cases. Based on the analysed unpublished COB dataset, three highest number of cases were related to recovery of sums due, that is failure to pay by the proprietor, purchaser and / or strata owners to the operating management body. These most common cases remained the highest number of enforcement actions between the year 2017 until 2020, accumulated to 22,862 cases (see Table 5.43 below).

The survey result amongst strata residents/ owners also shows that from the residents and owners' perspectives. The management failed to successfully fulfil the task of collecting the maintenance fee, non-compliance of duties and by-laws as well as poor conduct of common property maintenance. Correspondingly, according to the strata managers' responses, the most critical issue experienced by the management is the late payments by the strata owners as well as the difficulty in collecting the management charges and sinking fund contributions, Table 5.43 showing key results is referred. These outcomes are consistent with existing studies and reports relating to poor collection of maintenance charges (Abas et al., 2021; MIEA, 2020; Tawil et al., 2011). The following table shows the summarised results between the three analysed, above-mentioned datasets.

Table 5.43 Key findings on most critical issue in strata management

Literature	COB Dataset	Owners' Survey	Managements' Survey
1. Difficulty in collecting fee 2. Parcel owner refusal to pay fee	1. Failure to pay maintenance fee and failure to	1. Collection of maintenance charge	1. Late Payments by residents 2. Collecting Management

Literature	COB Dataset	Owners' Survey	Managements' Survey
3. Poor maintenance due to lack of funds 4. Poor quality construction and material	contribute to sinking fund 2. Failure to comply to Tribunals' notice to pay maintenance charges and sinking fund	2. Fulfilment of duties and by-laws 3. Managing common property	Charge & Sinking Fund 3. AGM Attendance
(Abas et al., 2021; Abdul-Rahman et al., 2014; Ashraf Wahab, 2020; Azlan Zambry, 2023; MIEA, 2020; Tawil et al., 2011)	See Table 5.5	See Figure 5.5 and Table 5.22	See Table 5.37

This issue has been prolonged for several years according to several published reports and studies, and yet is again proven in this study based on the survey and the recorded COB dataset. Nevertheless, the only counteractive approach to breakout from this maintenance fee issue are for the management bodies to either disclose the defaulters' names, restricting access to properties and facilities which have yet to show any significant improvement to solve the said issue (John Chan & Teh, 2020). The management may take necessary enforcement actions involving the Tribunal and / or the COB, this includes confiscation of moveable belonging and / or assets in accordance to the provision under the strata management act (KPKT, 2017, 2018, 2019). However, despite the availability of existing methods for recovering unpaid sums, the collection remains unsatisfactory and does not address the ongoing issue of poor collection. Therefore, it is imperative to explore alternative collection methods, drawing inspiration from practices employed in countries like Australia, Singapore, and Hong Kong, as a proactive step towards addressing the persisting issue of poor collection in the future.

5.5.2.3 Strata Residents' Satisfaction

The strata owners' responses shows that the respondents by majority agrees that the management office are putting efforts in ensuring their responsibilities are fulfilled. The

survey also learnt that amongst the strata residents, there is a significant relationship between the selected satisfaction of common facilities and the amount of maintenance fee charged (Table 5.16). Additional tests on satisfaction level shows how respondents residing within public strata schemes are more satisfied with the common facilities compared to those in private strata schemes. In another test done in finding the RII mean score shows that the respondents are most satisfied with the overall building condition, the common facilities, this shows consistency in the results, though ranked differently, the RII score does not fall far off from between each variable amongst the listed common facilities (see Table 5.19). The satisfaction mean score amongst the strata owners also shown the consistency in the satisfaction of those with an active management or the overall respondents and responses of those with active management. The result top three highest RII mean scores for satisfaction are maintenance of multipurpose hall, pigeon hole, and garbage house (see Table 5.15).

However, there is a mismatched between the residents and owners' expectation, satisfaction and attitude in regards to strata management, further discussion in the following section.

5.5.3 Awareness

This section highlights the study outcomes relating to the roles and responsibilities performed by the management office and the strata owners.

5.5.3.1 Owners' Attitude

Aside from the refusal to pay maintenance fee or delay in payment, other issue primarily includes owners' or residents lack of concerns for future maintenance as well as ignorance towards house rules and irresponsible use of the common property (Abdul-Rahman et al., 2014; Ahmad Ezanee et al., 2015; Azian et al., 2020; Farhan et al., 2019; Ihsan & Alshibani, 2018; ILKAP, 2020; Mahyuddin et al., 2018; Miller & Muhammad Shafiq, 2022; Oyetunji & Oluleye, 2021; Wahi et al., 2018; Wan Sumayyah Syahidah

et al., 2018). Similar to the previously discussed issues concerning late or delayed payment of maintenance charges, there appears to be a discrepancy between owners' expectations regarding the maintenance of common property and their payment performance.

Other attitude issue includes failure or refusal to attend the annual general meetings (AGM). While the management office is required to issue a 30 days' notice convening of the general meeting, the strata owners and residents are expected to attend the convened meeting. These meetings are important as highlighted matters during the meetings will require valid votes according to the aggregate share units (L. C. Tan et al., 2022). Management result survey (see Table 5.37) shows that AGM attendance is ranked in third place from the thirteen issues listed in the survey, after late payments and challenges in collection of sinking funds.

Vandalism is another critical attitude issue amongst the low-cost strata owners and residents (Noor Suzilawati et al., 2021; Norsafiah et al., 2023). Whilst other studies may highlight vandalism or lack of care to be one of the top issues, this study have found that in comparison to other maintenance issue, damages caused by vandalism was ranked 7th place after several plumbing issues (inclusive of general and sewer pipes), roof leakages and poor drainage (see Table 5.32 and Table 5.42). The difference in result are significantly due to majority of the surveyed managements are those with buildings of 10 years or older in lifespan, in which the pipes' lifespans would typically up to 15 years, later than that issues are most likely to occur (ILKAP, 2020; Miller & Muhammad Shafiq, 2022).

5.5.3.2 Management and Maintenance Records and Audits

Poor maintenance records. Many managements participated in the survey were not able to provide necessary data due to poor maintenance records and / or documentation. Based on the survey conducted amongst 50 managements, the following are the details that were not provided by the management due to records and the number of managements with mentioned challenges.

Table 5.44 Summarized Managements' Survey Results on Poor Records

	F (%)	Total Frequency	Reference
Issuance of CCC	26 (52%)	50	Table 5.26
Delivery of VP	18 (36%)	50	Table 5.26
Maintenance costs	35 (70%)	50	Table 5.34

Several studies highly recommends that the maintenance records to be included into design consideration during the design and construction stage (Abas et al., 2021; Ahmad Ezanee et al., 2015; Shoar & Payan, 2022). However, should this practice continue, the lack of maintenance expenses records as shown in the survey results, such recommendation is for naught, which therefore reflects the future of building maintenance practices in low-cost strata in Malaysia.

At the same time, practising risk management begins with a thorough and well-organized risk management. The main objective is to manage risks by harmonising the cost of protection measures with benefit (Peterson, 2010). Part of a strategic Facility Management function, it is important to establish clear objectives and statement in regard to the risk management and communicate with the organization in regards to the risk (H. A. Hashim et al., 2019). A good management quality is highly influenced by the management's strategy that has taken into consideration of the management team and its technical professional. Managing its resources, records and movement of information have great influence over the time taken for action to be taken either for repair works, maintenance or even for any dispute resolution (Altmann, 2016; Christudason, 2008; Jylhä & Suvanto, 2015).

This discovery underscores the inadequate documentation and record-keeping practices prevalent in low-cost and low-medium cost strata management. Such practices hinder effective cost control and the ability to conduct life cycle cost analyses for respective strata schemes. This deficiency is concerning and requires immediate attention to enable the implementation of life cycle cost analysis. Doing so would

enhance the financial strategies of existing management bodies and provide valuable insights for future reference in new strata developments, particularly during the planning and design phases.

5.6 CHAPTER SUMMARY

In summary, the synthesized triangulated data from the three primary sources, combined with the literature review, highlights the critical issue of poor collection of maintenance fees and sinking funds. Surprisingly, dissatisfaction with maintenance fees was found even among those making lower contributions, with a significant number of non-paying strata owners being charged less than RM50. The triangulation method also underscores the central importance of strata management fees to the effectiveness and efficiency of strata management practices. Delays or non-payment of fees create a detrimental cycle, impacting cash flow, hindering maintenance work, and leading to resident dissatisfaction and refusal to pay. This cycle must be addressed to move the strata management system towards greater efficiency and harmony. The forthcoming chapter will propose recommendations based on the key findings to address these issues and move towards improvement.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1 INTRODUCTION

This research rigorously examined the perceptions of both strata residents and management bodies regarding the prevailing practices and challenges in low-cost and low-medium cost strata management across Malaysia. It thoroughly delved into the stages of strata development and associated regulations, shedding light on their profound impact on the efficacy of strata management. Through meticulous data collection and analysis, this study successfully fulfilled its objectives and addressed the research questions. As a result, this chapter serves as a crucial link between the research objectives and outcomes.

6.2 RESEARCH FINDINGS

The research findings are based on triangulated analysis of data collected from three primary sources: the COB dataset, residents' survey, managements' survey, and further cross-referencing with secondary data from published reports and existing literature. In essence, the study has identified the challenges associated with providing quality building maintenance within the framework of existing strata management legislation and regulations. This presents an opportunity for improvement involving all relevant stakeholders, including the COB, management bodies, owners, and developers. The following section will outline key findings corresponding to each research objective, provide recommendations, and address future study suggestions aimed at enhancing low-cost strata management and overall strata development practices.

Table 6.1 Reinstatement of Research Objectives and Key Findings

RO	Key Findings		Recommendation
	Issues	Causes	
RO 1	1. A one-size-fits-all approach is no longer suitable	Ambiguous standard / process	Amendment of the Strata Management Act
RO 2,3 4,5	2. Refusal to pay, and late payments	Limited knowledge / transparency on the significance of the maintenance fee and sinking fund contribution.	Awareness Efforts
	3. Strata owners are dissatisfied with the charged maintenance fee due to limited transparency.	No standard guideline in setting the maintenance, each management bodies have their own standard	Maintenance Fee Reference Framework
	4. Strata Owner's refusal to pay sums due	Difficulties in collecting maintenance charge and sinking fund and insufficient funds for major maintenance / upgrading works	Alternative Methods to Recovery of Sums Due
	5. Poor common property management and Poor maintenance	Due to lack of funds result of late payment / refusal to pay the maintenance fee and sinking fund	Improving Management's Maintenance Strategy
RO 4,5	6. Poor quality construction and material and poor maintenance	Ageing building and reoccurring damages affects the overall maintenance costs	Maintenance Charge Reassessment, Integrated Building Condition Assessment

Derived from the table presented above, this section will elucidate critical findings corresponding to each research objective, accompanied by enforceable recommendations. Additionally, it will provide insights into future research avenues aimed at enhancing strata management especially among low-cost and low-medium cost strata developments.

Objective 1: To ascertain the framework and processes between strata developments and strata management

The first research objective was achieved based on the analysis of the development process in Malaysia. This pertains the processes involving land matters, to application of the developers' license and advertisement permit, including the necessary procedures towards the issuance of individual or strata title. Identifying and reviewing all related processes and related legislations and regulations, this study was able to root out the issues that emerged from the project initiation stage, with prolonged land matters and design affecting the establishment of strata management and associated matters.

While plenty have improved in terms of the application and issuance process of strata title, the biggest hindrance prevails, that is the transfer of strata title. This issue is one issue that commonly occurs amongst the low-cost strata owners. In perfecting the strata title transfer, parcel owners may have problems in fulfilling the monetary requirements which includes the Memorandum of Transfer, stamp duty, and registration fees, amongst other miscellaneous costs. Failure to proceed with the perfection of transfer will consequently affect the minimum 25% aggregate for the establishment of the MC, and the developer will never graduate from its role in the strata development's management matters, under the establishment of JMB. As an effort towards reducing this transfer issue, tax exemptions campaigns like the Home Ownership Campaign (HOC) were introduced. However, the said campaign has yet to achieve its full expectation.

By identifying the issues during the development and post CCC stage, through secondary data, the study was able to collect COB's dataset recording of the establishment of strata management bodies. Out of 22,497 recorded strata schemes in 2020, 54% have yet to establish its management corporation. In comparison to the data of the previous years, between 2016 to 2019, there is a steady increase in the number of strata schemes, but the number of MC was not linear to the growth of strata schemes.

Objective 2: To assess strata owners' satisfaction level towards the maintenance of common property

It was found that the strata residents' satisfaction level is of high tolerance; those residing in low-cost strata have higher satisfaction compared to those in low-medium cost despite having fewer common facilities. However, for each strata category analysed, majority still considered the amount to be unfair despite paying very low maintenance charges. Strata owners and residents of public strata schemes also show a higher satisfaction level compared to those in private strata schemes. This case in particular, refers to those residing in PPR schemes and are not contributing to the maintenance fee and sinking fund. Parallel to a claim made in a published report that the satisfaction level of strata owner is more influenced by the lower maintenance charge instead of the number of common properties. The parcel owners' willingness to pay the low charges however cannot be considered sustainable for management bodies to conduct quality maintenance. Hence leading this study to conclude that discharging all responsibilities and expectations on the management bodies and property managers to meet the owners and residents' satisfaction should no longer be the case as this approach has been proven to cause many issues thereof. Thus, to overcome and improve the low satisfaction and perceived unfair charges, this study recommends (i) continuous awareness and (ii) improving the management's maintenance strategy and information transparency.

Objective 3: To assess the differences in determining maintenance cost and fees among the low-cost strata categories

Majority of the literature focuses on factors determining maintenance cost of buildings in general and in some focuses on commercial buildings. While most authors agree that building age, building condition and the common facilities are significant factors in determining the maintenance charges, this study found no significant relationship of the same magnitude. This may be due to the lack of actual accepted standard in determining the maintenance charges for the low-cost and low-medium cost strata as well as poor records, or lack of reassessment of maintenance charges as the building ages over time.

Objective 4: To analyse the issues and challenges in strata management, and its relation to the maintenance charges

The fourth research question and objective were answered through synthesized findings from the literature review, COB dataset, and surveys. The most critical issue is the poor collection of maintenance charges. The poor collection is deemed to be critical as its occurrence has become too common to the extent of becoming an obstacle to perform quality maintenance. The COB data showed that even upon notices and awards issued by the Tribunal to pay the overdue maintenance charges, a significant number of strata owners' and/or residents continue to feign ignorance in fulfilling their maintenance charge responsibilities. Consequent to the poor collection, most management offices find themselves financially challenged to conduct maintenance work. Minor repairs if further delayed, for example, may become more severe, resulting instead, in a major replacement.

Objective 5: To evaluate the effectiveness of existing mechanisms related to strata management practices and collection of maintenance fees.

Despite provisions in the act regarding roles, responsibilities, and offenses, issues persist with maintenance fee collection and management body accountability, as evidenced in this study through data triangulation. In addition to various recovery methods permitted under the Strata Management Act, such as written notices, tribunal claims, property seizure, and civil suits, the collection remains suboptimal. While strata owners generally understand their roles and responsibilities, attitudes and knowledge are not consistently aligned. This conclusion was drawn after considering ongoing efforts to spread understanding of strata management, and based on the survey where the majority of strata owners reasonably understood the workings and roles under the Strata Management Act. However, enforcement actions taken by the COB reveal that despite efforts to spread understanding, enforcement actions, failure to pay maintenance charges or contribute to the sinking fund, are prevalent. Furthermore, some even disregard tribunal awards, indicating a lack of accountability.

6.3 RESEARCH RECOMMENDATIONS

Building upon the key findings discussed earlier, this section elaborates on each recommendation in detail.

Recommendation 1: Amendment of the Strata Management Act

The effectiveness of strata management practices relies heavily on the synchronization of the Act with other relevant legislation, emphasizing the need for clear and enforceable standards. It is imperative that the Strata Management Act undergoes thorough review and amendment to align with evolving strata development trends. With the rise of complex mixed-use strata developments, such as those found in urban areas, a one-size-fits-all approach is no longer suitable. Similar to Australia's approach, Malaysia must adapt its legislation to accommodate diverse strata developments. This includes revisiting the share unit formula and its weightage factor, which may no longer adequately address the needs of mixed-use strata developments. In addition to flexible regulations to address the complexities of modern strata living, future amendments to the Strata Management Act should prioritize enhancing awareness of roles and responsibilities among relevant parties, promoting life cycle cost practices, establishing a reliable point of reference, and regulating building condition assessments to enhance the overall condition of strata housing. These considerations are crucial steps towards improving strata management practices and are further discussed in the subsequent recommendations.

Recommendation 2: Persistent awareness efforts to include prospective strata owners

This study reiterates the importance of management bodies, the ministry, COB and the Strata Management Tribunal to continue and boost the spread of awareness especially on maintenance charges, contributing to the sinking funds and other crucial matters towards the preservation, safety and overall strata well-being. While several trainings and seminars were done to improve management skills amongst the JMB and MCs

conducted by the COB, it is equally important to ensure that the prospective strata home purchasers understand what entails the ownership of a strata property.

Persistent efforts in educating prospective strata owners / proprietors on responsibilities entails with each strata ownership and living should involve related agencies, the management bodies, the KPKT, COB and even the Strata Management Tribunal (if needed). The inability to proceed with the transfer of strata titles commonly due to financial constraints is also a result of the lack of knowledge on the future costs that comes with each purchase of strata property. The proprietors' roles and responsibilities under the Strata Management Act, are not limited to attending the annual general meetings, attending to aspects of common properties and sinking funds, not only to reside in the strata property but also to assume responsibility for it. Thus, it is important for these proprietors to be aware of the strata development stages and inclusive of when their presence and roles are required. Minimal briefings should at least be conducted before the signing of Sales and Purchase, and upon or prior to the delivery of vacant possession, which should include matters relating to the strata management act itself, the management's standard operating procedure, billing information, dispute resolution options and roles of the COB.

Recommendation 3: Improving Management and Maintenance Strategy

The ethical and transparent administration of strata management, particularly concerning maintenance accounts and budgets, should provide clarity regarding maintenance decisions and charges, thereby enhancing owners' expectations and overall satisfaction. Consequently, the study proposes the implementation of two types of blueprints and/or guidelines, namely:

- i. Managements' Business plan and Guidelines for Quality Maintenance – LCC and Professional Technical Members
- ii. Blueprint to Strata Living (COB, Developer, Management and Owners)

The management guidelines for quality management and maintenance must underscore the critical importance of life cycle cost (LCC) practices and analysis. To execute life cycle cost analysis for strata management and maintenance efficiently,

management bodies must focus on improving their record-keeping and documentation systems. This entails maintaining well-organized and accessible records of account auditing, maintenance cost activities, and warranty safekeeping. These records should serve as valuable references for current management bodies and inform future maintenance planning for both new and established strata developments.

Hence, it is imperative to actively involve experienced property managers in determining building management procedures and maintenance fees, even during the planning stage, as is commonly practiced in Singapore. Property management companies are typically consulted by developers to provide input on maintenance fees for strata purchasers and necessary maintenance requirements. However, in Malaysia, the role of property managers is often marginalized during the planning phase. This must change to ensure enhancements in overall strata building construction and design, thereby fostering better practices in building management and maintenance in accordance with the Strata Management Act and Malaysian Property Management Standards.

The proposal for a stratum living blueprint must entail the development of thorough yet easily understandable guidelines to support both strata owners and novice JMB members in effectively managing and maintaining strata schemes. This blueprint should also address concerns related to the COB, with the objective of fostering improved communication and cooperation among the COB, management bodies, and owners. It is imperative that the blueprint encompasses specifics such as the roles and obligations of management bodies and strata owners, strategies for optimizing maintenance fee collection, typical challenges and remedies, and protocols for resolving disputes.

Recommendation 4: Alternative method to recovery of outstanding fees

Disputes over the fairness of maintenance fees have exacerbated problems such as delayed contributions and outstanding payments. While each country and management body employ its own methods for recovering overdue sums, Malaysia tends to take a more lenient approach, allowing for instalment payments or restricting access to

common facilities including several other recovery methods that are expressly allowed under the strata management act, such as issuance of written notice, claims to the tribunal, seize of moveable property, and /or filing for civil suit. In contrast, countries like Singapore and Hong Kong frequently utilize legal notices, a practice permitted under their respective strata management regulations. Considering these practices, Malaysia could benefit from adopting a more proactive approach, including Lawyer's letters like Singapore and Hong Kong as well as implementing late payment penalties akin to those in Australia, to deter tardiness and improve the current situation of outstanding fees.

Recommendation 5: Maintenance Fee Reference Framework

There are mentions under the strata management act provision that sinking fund shall be equivalent to 10% of the charges unless otherwise agreed in the general meetings from time to time. Even then, the newly agreed amount shall not be less than 10% of the charge. However, the same cannot be said for maintenance charge itself as there are no form of guideline or estimated standard mentioned in determining the maintenance charges. Creating an open-access database or a form of maintenance fee handbook or authorized schedule of rates would be an added value to the industry and benefit relevant stakeholders. This recommendation would serve as a reference point for management offices and strata owners when setting maintenance fees. It would promote transparency and facilitate more productive discussions and decision-making processes regarding maintenance charges. An open access to these rates that will be periodically updated based on existing databases in the likes of e-COB, would benefit even the policy makers and the tribunal in resolving relevant issues in a more transparent manner.

In addition, this framework for maintenance charges / database can be based on a guided input format, and as an amended Form under the Strata Management (Maintenance and Management) Regulation 2015. This recommendation would also responsibly produce a baseline towards a regulated Building Condition Assessment which is also included as part of this study's recommendation.

Recommendation 6: Maintenance Charge Reassessment, Integrated Building Condition Assessment

The study was able to identify the impact of building condition and age on the maintenance cost. The building condition and age expectancy were found to be influenced by the quality of the building during construction, as well as the possibility of material quality differences of those built before and after the year 2000. Hence, a regulated assessment of the building condition will be an approach that shall allow the revaluation on whether the currently imposed maintenance charge and sinking fund are considered feasible or otherwise, that is positively affecting the building's well-being as well as the managements' financial strategy.

A standardized building assessment conducted by professional Building Surveyors is imperative for ensuring the longevity and safety of high-rise buildings. Inspections should occur every 10-years for aging buildings, typically lasting 50 to 60 years. These assessments help plan ongoing maintenance and service life. Focus areas include waterproofing, water tanks, and plumbing systems, aiming to prevent problems like leaks between walls or floors and water tank failures. It is also vital to involve relevant authorities, agencies, and departments in building assessments conducted at the 10-year mark, similar in importance to their involvement during the CCC approval stage. This mirrors the practice in Hong Kong, where the Mandatory Building Inspection Scheme (2012) mandates inspections for buildings exceeding three stories and reaching over 30 years old, followed by rectification of identified issues. At each designated interval, officially sanctioned building assessments must be conducted, providing substantiated reports to warrant the issuance of Notices indicating adjustments to maintenance charges and sinking funds. Provisions for conditional reassessment of maintenance charges should be incorporated to promote strategic and legally compliant management and upkeep of strata properties.

Moreover, rather than depending solely on government subsidies for renovation projects, adopting Australian strata law is recommended. This involves mandating every development to create a 10-year plan for major projects during the initial meeting, with reviews every 5 years. This approach would improve maintenance practices in Malaysian strata properties.

6.4 FUTURE STUDIES

In addition to the key findings and recommendations outlined above, this study strongly advocates for further investigation and research in the following areas to drive future enhancements in various aspects of strata management.

Recommendation for Further Study: Reappraisal of Share Unit Weightage Factor

A study aimed at reassessing the current weighting factor of the share unit formula within the strata management act is crucial, as it needs to reflect the changing landscape of strata developments. These developments are now more diverse and complex, extending beyond mere provision of amenities like air-conditioning or the presence of elevators. The rationale behind each weighting factor must be carefully reevaluated, taking into account the emergence of mixed-use developments and the increasing prevalence of sub-management corporations in the future. This reassessment holds significance as it directly impacts the calculation of maintenance charges, which are determined based on the aggregate allocation of share units as stipulated in the strata management act.

Recommendation for Further Study: Strata Refurbishment or New Construction towards achieving Sustainable Development Goals (SDG)

The 9th and 10th Malaysia Plans have both promoted building refurbishment over new construction, offering an interesting angle on policy implementation in line with Sustainable Development Goals (SDGs). Conducting a thorough study to evaluate the relative effectiveness of these approaches is imperative. As newer sustainable and green developments emerge, they are set to compete with aging buildings vulnerable to deterioration and dilapidation. Without a comprehensive strategy to address the condition of these older structures, they may pose safety and health risks to occupants and detract from the aesthetic appeal of their surroundings over time.

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APPENDIX I: QUESTIONNAIRE IMPLEMENTATION LETTER

	KEMENTERIAN PERUMAHAN DAN KERAJAAN TEMPATAN BAHAGIAN PERKHIDMATAN PERBANDARAN Aras 27 No. 51, Persiaran Perdana, Presint 4, Pusat Pentadbiran Kerajaan Persekutuan 62100 Putrajaya, Malaysia	Tel : 03-8000 8000 Fax : 03-8891 5048 http://www.kpkt.gov.my
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Rujukan Kami : KPKT/800-7/2/7 Jld. 7 (74)
Rujukan Tuan :
Tarikh : 25 Mac 2021

SEPERTI DI SENARAI EDARAN

Tuan/Puan,

PELAKSANAAN KAJIAN SOAL SELIDIK SKIM STRATA OLEH PIHAK IIUM

Dengan segala hormatnya saya merujuk kepada perkara yang tersebut di atas.

2. Dimaklumkan bahawa KPKT telah melantik pihak International Islamic University of Malaysia (IIUM) sebagai perunding untuk melaksanakan satu kajian soal selidik di skim strata kos rendah dan kos sederhana rendah yang terpilih di Semenanjung Malaysia. Kajian ini akan dilaksanakan secara bersemuka dan bermula pada bulan April 2021.

3. Sehubungan dengan itu, pihak tuan dipohon memaklumkan badan pengurusan di skim-skim strata yang terlibat untuk memberikan kerjasama dan membekalkan maklumat yang diperlukan oleh pihak IIUM dalam menjayakan pelaksanaan kajian ini.

4. Kerjasama pihak tuan/puan dalam perkara ini amat dihargai dan didahului dengan ucapan ribuan terima kasih.

Sekian dan salam hormat,

"PRIHATIN RAKYAT: DARURAT MEMERANGI COVID-19."

"BERKHIDMAT UNTUK NEGARA"

Saya yang menjalankan amanah,


(MOHD SYAIFULRIZAL BIN ABU BAKAR)
Setiausaha Bahagian
Bahagian Perkhidmatan Perbandaran
b.p Ketua Setiausaha
Kementerian Kesejahteraan Bandar, Perumahan Dan Kerajaan Tempatan

APPENDIX II: SURVEY QUESTIONNAIRE FOR STRATA OWNERS / PROPRIETORS

PEMILIK/ PENYEWA PETAK

Kerajaan sedang dalam usaha untuk melindungi hubungan dan urusan pemilik tapak bersama pengurusan strata supaya lebih baik dengan cadangan pemindaan Akta Pengurusan Strata (Akta 757). Objektif bagi penyelidikan ini adalah seperti berikut:

- Untuk mengenal pasti masalah-masalah yang dihadapi oleh Pemilik/ Penyewa Strata kategori Kos Rendah dan Kos Sederhana Rendah
- Untuk mengenal pasti skim yang bermasalah bagi pemajuan sebelum atau selepas penguatkuasaan Akta 757
- Untuk mengenal pasti kos sebenar bagi penyelenggaraan skim strata

Soal selidik ini adalah untuk **pemilik/penyewa petak** sahaja.

Soal selidik ini hanya mengambil masa selama **15 minit** untuk disempurnakan.

LATAR BELAKANG STRATA

Kod Enumerator:		Tarikh:	
Nama Skim / Perumahan:			
Lokasi Strata:			
Kategori Perumahan:		Perincian Hartanah Strata:	
Program Perumahan Rakyat (PPR) []		Bilangan Unit [] unit(s)	
Kos Rendah []		Bilangan Blok [] unit(s)	
Kos Sederhana Rendah []		Bilangan Tingkat [] unit(s)	
Lain-lain: []		Bilangan Parkir [] unit(s)	
..... []		Bilangan Lif [] unit(s)	

BAHAGIAN A: PROFIL RESPONDEN DAN PROFIL SKIM STRATA RESPONDEN

Arahan: Sila tandakan (/) pada jawapan yang betul mengenai diri anda.

1. Warganegara	Malaysia []	Lain-Lain: _____	
2. Bangsa	Melayu []	India []	
	Cina []	Lain-lain: _____	
3. Jantina	Perempuan []	Lelaki []	
4. Umur tahun		
5. Status Perkahwinan	Bujang []	Berkahwin []	Ibu/Bapa Tunggal []

BAHAGIAN A: PROFIL RESPONDEN DAN PROFIL SKIM STRATA RESPONDEN

6. Pekerjaan & Pendapatan		Tahap Pendidikan	
Pendapatan [RM.....]	Sebulan	Doktor Falsafah atau [] yang setaraf	
Kakitangan kerajaan (Tetap)	[]	Ijazah Sarjana	[]
Kakitangan kerajaan (Kontrak)	[]	Ijazah Sarjana Muda	[]
Swasta (Tetap)	[]	Diploma	[]
Swasta (Kontrak)	[]	Asasi	[]
Pencen	[]	Sijil	[]
Bekerja sendiri	[]	Sekolah Menengah	[]
Pelajar	[]	Sekolah Rendah	[]
Tidak bekerja	[]	Lain-lain. Sila nyatakan:	
7. Bilangan Isi Rumah			
Jumlah Bilangan [.....orang] (Termasuk Responden)			Bilangan
		Responden	
		Pasangan	
		Anak (18 tahun dan ke atas)	
		Anak (17 tahun dan ke bawah)	
		Ibu & Ayah	
		Datuk & Nenek	
		Adik beradik	
		Rakan-rakan Serumah	
8. Keluasan Unit Kediaman	 kps / m2	
9. Nilai Hartanah Kediaman (Pemilik kediaman sahaja)		RM (Nilai Semasa Pembelian /Pelancaran)	RM (Nilai Pasaran Terkini)
10. Pemilikan dan Bilangan Pemilikan Aksesori Lain		Sila Nyatakan : Contoh : <u>Petak Parkir - 2 Bilangan</u> 1) 2)	
11. Secara keseluruhan, bagaimana anda menilai keadaan kediaman semasa anda mula berpindah masuk?		Sangat Baik	
		Baik	
		Biasa	
		Teruk	
		Sangat Teruk	
12. Nyatakan bulan/tahun anda pindah masuk ke skim strata anda (rumah sekarang) <i>Contoh: Saya telah berpindah masuk pada Jan 2019</i>		Saya telah berpindah masuk pada	
13. Jenis Pemilikan		Milik Sendiri []	Kediaman Sewaan []

BAHAGIAN A: PROFIL RESPONDEN DAN PROFIL SKIM STRATA RESPONDEN

14. a. Apakah senarai kemudahan bersama yang disediakan di hartanah strata anda? (Untuk Kegunaan Enumerator)

b. Berdasarkan kemudahan yang disediakan, yang manakah yang paling kerap digunakan? (1 = Paling Jarang / 2 = Jarang / 3 = Kerap / 4 = Paling Kerap)

c. Secara keseluruhan, bagaimanakah anda menilai keadaan kemudahan/ fasiliti di kediaman strata anda semasa anda berpindah masuk? [1= Tidak Memuaskan / 2= Kurang Memuaskan / 3: Memuaskan / 4 = Sangat Memuaskan]

a. (untuk kegunaan Enumerator)	b. Kadar Keperapan				c. Tahap Kepuasan			
	1	2	3	4	1	2	3	4
<input type="checkbox"/> Dewan Serbaguna								
<input type="checkbox"/> Kolam Renang / Kolam Kanak-kanak								
<input type="checkbox"/> Tempat Pembuangan								
<input type="checkbox"/> Kawasan Landskap								
<input type="checkbox"/> Pagar								
<input type="checkbox"/> Peti Surat								
<input type="checkbox"/> Surau								
<input type="checkbox"/> Kawasan Ruang Parkir								
<input type="checkbox"/> Ruang Parkir Pelawat								
<input type="checkbox"/> Alatan Senaman Luar (Outdoor Gym)								
<input type="checkbox"/> Ruang Terbuka								
<input type="checkbox"/> Lif/ Elevator								
<input type="checkbox"/> Taman Permainan								
<input type="checkbox"/> Pondok Pengawal								
<input type="checkbox"/> Gelanggang Serbaguna								
<input type="checkbox"/> Tangga								
<input type="checkbox"/> Tangki Paip Utama								
<input type="checkbox"/> Ruang berniaga								

15. Adakah kediaman strata anda mempunyai badan pengurusan strata yang beroperasi secara aktif?	Ya <input type="checkbox"/>
	Tidak <input type="checkbox"/> Menurut pendapat anda, adakah anda ingin ia ditubuhkan? Sila nyatakan justifikasi anda.
16. Antara berikut, badan pengurusan yang manakah sedang beroperasi di kediaman strata anda?	Joint Management Body JMB <input type="checkbox"/> Management Corporation (MC) <input type="checkbox"/> Ejen Pengurusan <input type="checkbox"/> Nyatakan Lain-lain :
17. Apakah nama berdaftar badan pengurusan strata di hartanah strata anda?	Nama Pengurusan / Nama Syarikat / Nama Individu
18. Berapakah tempoh operasi badan pengurusan tersebut? bulan/ tahun Tidak Tahu <input type="checkbox"/>
19. Pernahkah anda menghadiri Mesyuarat Pengurusan Strata?	Ya <input type="checkbox"/> Nyatakan bilangan kehadiran (bilangan hadir / jumlah mesyuarat): Tidak <input type="checkbox"/> Nyatakan sebab ketidak hadiran:

BAHAGIAN A: PROFIL RESPONDEN DAN PROFIL SKIM STRATA RESPONDEN

			
20. Secara anggaran, sekiranya terdapat aduan, berapa lama masa yang diperlukan untuk pembaikan atau penyelenggaraan selesai? jam / hari / minggu / bulan			
21. Sila isikan (/) berdasarkan tahap kepuasan anda terhadap perkara yang berikut: [1= Tidak Memuaskan / 2= Kurang Memuaskan / 3= Memuaskan / 4= Sangat Memuaskan]				
22a. Apakah tahap keberkesanan anda terhadap pengurusan isu kritikal sepanjang operasi pengurusan strata?				
	1	2	3	4
1. Caj Perkhidmatan dan Dana Simpanan (<i>Sinking Fund</i>)				
2. Kebocoran dari unit bersebelahan/ atas				
3. Penyerahan pengurusan dari pemaju kepada JMB / MC				
4. Penyertaan dalam Mesyuarat Agung				
5. Pengeluaran hakmilik strata yang Lewat				
6. Keselamatan				
Lain-Lain:				
22b. Apakah tahap kepuasan anda terhadap aspek-aspek berikut?				
	1	2	3	4
1. Keadaan keseluruhan kediaman				
2. Keselamatan kediaman anda				
3. Keselamatan kejiwaan anda				
4. Hubungan dengan pemilik kediaman				
5. Kadar sewa rumah				
22c. Secara umum, bagaimana anda menilai keadaan kediaman sewaan semasa anda mula berpindah masuk?				
	1	2	3	4
1. Saiz Ruang Tamu				
2. Saiz Bilik Tidur				
3. Saiz Bilik Air				
4. Saiz Dapur				
22d. Apakah tahap kepuasan anda terhadap sistem pengurusan strata?				
	1	2	3	4
1. Keselamatan				
2. Keluasan Tempat ampaian				
3. Kebersihan				
4. Kawalan Bunyi Bising				
5. Keadaan Lif				
6. Sistem Parkir Kereta				
Lain-Lain:				
22e. Apakah tahap kepuasan anda terhadap sistem keselamatan kediaman strata?				
	1	2	3	4
1. Keselamatan Bangunan Kediaman				

BAHAGIAN A: PROFIL RESPONDEN DAN PROFIL SKIM STRATA RESPONDEN			
2.	Penyelenggaraan laluan kecemasan penduduk		
3.	Keadaan struktur semasa bangunan		
4.	Keadaan / kualiti kemudahan bersama yang selamat digunakan		
5.	Tahap keselamatan / kebersihan kemudahan dan kawasan sekitar		
6.	Keadaan ruang rekreasi yang selamat untuk kanak-kanak		
	Lain-Lain:		

BAHAGIAN B: CAJ PENGURUSAN STRATA											
22. Bagaimanakah anda membayar caj pengurusan dan penyelenggaraan kepada badan pengurusan?	<table border="1"> <tr> <td>Bayaran termasuk didalam Sewaan daripada penyewa kepada pemilik kediaman</td> <td></td> </tr> <tr> <td>Bayaran terus kepada Badan Pengurusan Strata</td> <td></td> </tr> </table>	Bayaran termasuk didalam Sewaan daripada penyewa kepada pemilik kediaman		Bayaran terus kepada Badan Pengurusan Strata							
Bayaran termasuk didalam Sewaan daripada penyewa kepada pemilik kediaman											
Bayaran terus kepada Badan Pengurusan Strata											
23. Adakah anda perlu membayar deposit utility semasa pindah masuk/serahan kunci?	<table border="1"> <tr> <td>Ya. [] Nyatakan jumlah RM.....</td> <td>Tidak []</td> </tr> </table>	Ya. [] Nyatakan jumlah RM.....	Tidak []								
Ya. [] Nyatakan jumlah RM.....	Tidak []										
24. Berapakah nilai/jumlah caj pengurusan dan penyelenggaraan yang dikenakan oleh badan pengurusan?	<table border="1"> <tr> <td>RM/ bulan</td> <td></td> </tr> <tr> <td>Tidak Pasti kerana</td> <td></td> </tr> </table>	RM/ bulan		Tidak Pasti kerana							
RM/ bulan											
Tidak Pasti kerana											
25. Adakah anda menerima sebarang bantuan kewangan daripada kerajaan dalam membayar caj pengurusan strata?	<table border="1"> <tr> <td>Tiada</td> <td>[]</td> </tr> <tr> <td>Bantuan sewaan/subsidi RM / tahun</td> <td>[]</td> </tr> <tr> <td>Pinjaman bon RM / tahun</td> <td>[]</td> </tr> <tr> <td>Lain-lain. Sila nyatakan:</td> <td></td> </tr> </table>	Tiada	[]	Bantuan sewaan/subsidi RM / tahun	[]	Pinjaman bon RM / tahun	[]	Lain-lain. Sila nyatakan:			
Tiada	[]										
Bantuan sewaan/subsidi RM / tahun	[]										
Pinjaman bon RM / tahun	[]										
Lain-lain. Sila nyatakan:											
26. Apakah struktur bayaran caj pengurusan dan penyelenggaraan yang dipersetujui oleh kedua-dua pihak? (Jika ada, Tandakan yang berkenaan)	<table border="1"> <thead> <tr> <th>Struktur</th> <th>RM</th> </tr> </thead> <tbody> <tr> <td>Deposit (Semasa pindah masuk/ VP)</td> <td></td> </tr> <tr> <td>Bayaran Sekali Gus</td> <td></td> </tr> <tr> <td>Bayaran Bulanan</td> <td></td> </tr> <tr> <td>Nyatakan Lain-lain</td> <td></td> </tr> </tbody> </table>	Struktur	RM	Deposit (Semasa pindah masuk/ VP)		Bayaran Sekali Gus		Bayaran Bulanan		Nyatakan Lain-lain	
Struktur	RM										
Deposit (Semasa pindah masuk/ VP)											
Bayaran Sekali Gus											
Bayaran Bulanan											
Nyatakan Lain-lain											
27. Adakah anda tahu pecahan caj pengurusan dan penyelenggaraan yang dikenakan?	<table border="1"> <tr> <td></td> <td>Ya []</td> <td>Tidak []</td> </tr> <tr> <td><u>Kemudahan</u></td> <td></td> <td><u>RM/bulan</u></td> </tr> </table>		Ya []	Tidak []	<u>Kemudahan</u>		<u>RM/bulan</u>				
	Ya []	Tidak []									
<u>Kemudahan</u>		<u>RM/bulan</u>									

BAHAGIAN B: CAJ PENGURUSAN STRATA

1. Dewan Serbaguna		
2. Kolam Renang / Kolam Kanak-kanak		
3. Tempat Pembuangan		
4. Kawasan Landskap		
5. Pagar		
6. Peti Surat		
7. Surau		
8. Kawasan Ruang Parkir		
9. Ruang Parkir Pelawat		
10. Alatan Senaman Luar (<i>Outdoor Gym</i>)		
11. Ruang Terbuka		
12. Lif/ Elevator		
13. Taman Permainan		
14. Pondok Pengawal		
15. Gelanggang Serbaguna		
16. Tangga		
17. Tangki Paip Utama		
18. Kawasan Ruang Niaga		
	JUMLAH:	RM
	
28. Siapakah yang akan menanggung kos pembaikan unit petak?	Pemilik Kediaman	[]
	Penyewa	[]
	Badan Pengurusan	[]
29. Pernahkah anda mengalami apa-apa kesukaran untuk mendapatkan pembaikan?	Ya []	Tidak []
30. Jika ya, bagaimana anda menyelesaikan keadaan di atas?		
1. Selesaikan terus dekat ruan rumah/ ejen hartanah/ pengurus hartanah		
2. Membaiki sendiri		
3. Menghubungi organisasi lain/ PBT yang berkaitan.		
Sila nyatakan:		
4. Tidak berbuat apa-apa		
5. Berpindah keluar dari kediaman		
Lain-lain. Sila nyatakan:		
.....		
31. Berapakah kos lain yang perlu dibayar selain caj pengurusan dan penyelenggaraan bulanan? (Sila nyatakan yang berkenaan)		
1. Caj Elektrik	RM.....	
2. Caj Air	RM.....	
3. Caj Kumbahan	RM.....	
4. Caj Persatuan Perumahan	RM.....	
Lain-lain Caj 1 Nyatakan	RM.....	
Lain-lain Caj 2 Nyatakan	RM.....	

BAHAGIAN B: CAJ PENGURUSAN STRATA

32. Apakah lain-lain ‘wang keluar’ pengurusan strata sepanjang tempoh kediaman anda? (Sila tandakan yang berkenaan)	1. Penyelenggaraan dan pembaikan tahunan	
	2. Cukai taksiran	
	3. Bayaran premium untuk insurans	
	4. Caj perkhidmatan	
	5. Caj Promosi dan Iklan Perniagaan	
	Lain-lain. Sila nyatakan:	

33. Apakah cara pembayaran caj pengurusan dan penyelenggaraan dibenarkan / diterima oleh pihak pengurusan strata?	1. Pemindahan wang bulanan melalui bank	
	2. Deposit Tunai Bulanan (<i>Cash</i>)	
	3. Deposit Cek Bulanan	
	4. Cek bertarikh ke hadapan sehingga habis tempoh sewaan	
	Lain-lain. Sila nyatakan:	

Arahan: Sila tandakan (/) pada jawapan yang betul.

Bil	Soalan	YA	TIDAK
35.	Adakah anda pernah menerima notis ‘Lewat Pembayaran Caj Pengurusan dan Penyelenggaraan’	[]	[]
36.	Adakah anda berpendapat bahawa kadar caj pengurusan strata yang dikenakan ini adalah berpatutan?	[]	[]
37.	Pernahkah anda menghadapi kenaikan caj pengurusan strata sepanjang kediaman anda di skim strata ini?	[]	[]
		Nyatakan nilai peratus kenaikan:%	

38 Pada pendapat anda, apakah faktor yang mempengaruhi kadar caj pengurusan strata?
(1 = Sangat tidak setuju / 2 = Tidak setuju / 3 = Setuju, / 4 = Sangat Setuju)

	1	2	3	4
1. Keadaan Bangunan Strata				
2. Keadaan Harta Bersama				
3. Pengurusan Skim Strata				
4. Jangka Hayat Bangunan Strata				
5. Skala Bangunan Skim Strata				
6. Senarai/jenis-jenis kemudahan Strata				
7. Lokasi hartanah Strata				
8. Keluasan Unit Petak				
9. Diskaun caj dan struktur pembayaran				

Lain-lain faktor:
.....

BAHAGIAN C: KEFAHAMAN BERKENAAN PENGURUSAN STRATA

39. Berdasarkan pengalaman anda sebagai pemilik/penyewa petak, tandakan peranan yang telah dimainkan oleh badan pengurusan strata sepanjang tempoh operasi?
(1 = Sangat tidak setuju / 2 = Tidak setuju / 3 = Setuju / 4 = Sangat Setuju)

	1	2	3	4
1. Mengurus mesyuarat Penubuhan (MC)				
2. Mengurus harta bersama				
3. Menyelenggara harta bersama				
4. Menubuh satu kumpulan pengurusan kewangan bagi menampung perbelanjaan pentadbiran				
5. Menyelenggara pengurusan kewangan serta pentadbiran				
6. Menguruskan insurans bangunan dari aspek struktur dan harta bersama				
7. Mematuhi mana-mana notis atau arahan pihak berkuasa berhubung harta bersama				
8. Menyediakan senarai daftar yang mengandungi butiran lot, hak milik, bangunan, pemilik asal, MC petak, pemilik petak dan urus niaga.				
9. Mengemaskini rekod pemilikan hartanah/kediaman				
10. Menyemak dan melantik penyedia perkhidmatan yang relevan				
11. Mengendalikan Mesyuarat Agung Tahunan & Mesyuarat Agung yang relevan untuk mengatasi isu-isu yang berkaitan dengan pembangunan				
12. Penyediaan perbelanjaan belanjawan dan pelaksanaan rancangan penyelenggaraan				
Lain-lain (1). Sila nyatakan:				
Lain-lain (2). Sila nyatakan:				

40. Berdasarkan pengalaman anda sebagai pemilik/penyewa petak, tandakan bidang kuasa yang telah dikuatkuasakan oleh badan pengurusan strata sepanjang tempoh operasi?
(1 = Sangat tidak setuju / 2 = Tidak setuju / 3 = Setuju / 4 = Sangat Setuju)

	1	2	3	4
1. Mengenakan kutipan caj pengurusan keatas pemilik tapak				
2. Membeli, menyewa atau memperoleh harta alih untuk kegunaan berhubung harta bersama				
3. Menjana kewangan untuk menjalankan kuasa-kuasa atau tugas-tugas pihak pengurusan				
4. Mengambil tindakan terhadap pemilik petak sekiranya gagal mematuhi sebarang arahan/ peraturan				

BAHAGIAN C: KEFAHAMAN BERKENAAN PENGURUSAN STRATA

5. Melaksanakan tugas-tugasnya serta menguatkuasakan undang-undang kecil

Lain-lain (1). Sila nyatakan:

Lain-lain (2). Sila nyatakan:

41. Berdasarkan pengalaman anda sebagai pemilik/penyewa tapak, apakah jenis-jenis kerosakan yang dirasakan perlu diselesaikan oleh badan pengurusan strata pada kawasan dan kemudahan / fasiliti bersama?

(1 = Paling jarang / 2 = Jarang / 3 = Kerap / 4 = Paling Kerap)

	1	2	3	4
1. Paip Bocor/sumbat				
2. Kebocoran lantai / dinding				
3. Bumbung				
4. Tangki Air				
5. Gutter / Rain Water Down Pipe				
6. Dinding dalam / luar				
7. Paip Pembentungan				
8. Apron / Longkang				
9. Tingkap guna sama				
10. Tingkap Kediaman				
11. Tembok Penahan				
12. Taman Permainan				
13. Pagar				
14. <i>Manhole</i>				
15. Rumah Sampah				
16. Surau / Dewan				
17. Kerosakan akibat Vandalisme				
Lain-lain (1). Sila nyatakan:				
Lain-lain (2). Sila nyatakan:				

42. Berdasarkan pengalaman anda sebagai pemilik/penyewa tapak, pernahkah anda alami pertikaian berkenaan pengurusan dan penyelenggaraan?

YA | TIDAK

1. Pernahkah anda mengalami apa-apa kesukaran untuk mendapatkan pembaikan?

2. Pernahkah timbul pertikaian antara penduduk dan pihak badan pengurusan berkenaan pengurusan dan penyelenggaraan?

Jika YA, Nyatakan isu pertikaian tersebut:

.....

BAHAGIAN C: KEFAHAMAN BERKENAAN PENGURUSAN STRATA

<p>3. Adakah anda Berjaya menyelesaikan pertikaian tersebut?</p> <p>Jika YA, bagaimanakah anda menyelesaikan keadaan di atas? (Tandakan yang berkenaan)</p> <p>1. Selesaikan terus dekat ruan rumah/ ejen hartanah/ pengurus hartanah</p> <p>2. Membaiki / Menyelesaikan Sendiri</p> <p>3. Menghubungi organisasi / pihak berkuasa yang berkenaan Sila nyatakan:</p> <p>4. Tidak berbuat apa-apa</p> <p>5. Berpindah keluar dari kediaman</p> <p>Lain-lain. Sila nyatakan:</p>										
<p>43. Secara umum, siapa yang memberi maklumat dan nasihat berkenaan hak dan tanggungjawab sebagai pemilik/ penyewa petak? (Tandakan yang berkenaan)</p>	<p>1. Pengurus hartanah/ pengurus kediaman</p> <p>2. Penyewa lain</p> <p>3. Keluarga, rakan-rakan atau pemilik kediaman lain</p> <p>4. Laman web atau Pusat panggilan</p> <p>5. Forum atas talian/ media sosial/ laman web lain</p> <p>6. Tidak mencari maklumat atau nasihat</p> <p>Lain-lain. Sila nyatakan:</p>									
<p>44. Adakah anda tahu mengenai Akta Pengurusan Strata (Akta 757) di Malaysia? Jika YA, nyatakan sumber informasi anda (Susun mengikut aliran 1,2,3 Contoh seperti yg berikut:)</p> <table border="1"> <tr> <td>Surat khabar</td> <td>[2]</td> </tr> <tr> <td>Laman web</td> <td>[1]</td> </tr> <tr> <td>Keluarga / Kenalan</td> <td>[4]</td> </tr> <tr> <td>Lain-Lain: Iklan TV</td> <td>[3]</td> </tr> </table>	Surat khabar	[2]	Laman web	[1]	Keluarga / Kenalan	[4]	Lain-Lain: Iklan TV	[3]	<p>Jika Ya [], Sila nyatakan</p> <p>Surat khabar</p> <p>Laman web</p> <p>Keluarga / Kenalan</p> <p>Pekerjaan</p> <p>Lain-lain. Sila nyatakan:</p> <p>.....</p>	<p>Tidak []</p>
Surat khabar	[2]									
Laman web	[1]									
Keluarga / Kenalan	[4]									
Lain-Lain: Iklan TV	[3]									
<p>45. Adakah anda tahu terma-terma ini telah dimasukkan ke dalam Akta Pengurusan Strata di Malaysia?</p>										
		YA TIDAK								
<p>1. Mengenakan kutipan caj pengurusan keatas pemilik tapak</p>										
<p>2. Membeli, menyewa atau memperoleh harta alih untuk kegunaan berhubung harta bersama</p>										
<p>3. Menjana kewangan untuk menjalanka kuasa-kuasa atau tugas-tugas pihak pengurusan</p>										
<p>4. Mengambil tindakan terhadap pemilik petak sekiranya gagal mematuhi sebarang arahan/ peraturan</p>										

BAHAGIAN C: KEFAHAMAN BERKENAAN PENGURUSAN STRATA

5. Melaksanakan tugas-tugasnya serta menguatkuasakan undang-undang kecil		
6. Mengurus dan menyenggara dengan sempurna harta bersama;		
7. Menubuhkan dan menyenggara satu kumpulan wang pengurusan bagi tujuan menampung apa-apa perbelanjaan pentadbiran		
8. Menginsuranskan bangunan dari aspek struktur bangunan dan harta bersama terhadap kebakaran dan apa-apa risiko lain		
9. Mematuhi apa-apa notis atau arahan pihak berkuasa berhubung dengan harta bersama		
10. Menyedia dan menyelenggara suatu daftarai strata (<i>strata roll</i>) yang mengandungi butiran mengenai lot, hak milik, bangunan, pemilik asal, MC, petak, pemilik petak dan urus niaga.		
46. Adakah terdapat sebarang komen lain yang anda ingin berikan?		

END OF SURVEY – THANK YOU

APPENDIX III: SURVEY QUESTIONNAIRE FOR MANAGEMENT OFFICE

BADAN PENGURUSAN STRATA

Kerajaan sedang dalam usaha untuk melindungi hubungan dan urusan pemilik tapak bersama pengurusan strata supaya lebih baik dengan cadangan pemindaan Akta Pengurusan Strata (Akta 757). Objektif bagi penyelidikan ini adalah seperti berikut:

- Untuk mengenal pasti JMB/MC strata yang aktif beroperasi di Malaysia.
- Untuk mengenal pasti masalah-masalah yang dihadapi oleh Badan Pengurusan Strata kategori Rumah Mampu Milik
- Untuk mengenal pasti pemajuan yang bermasalah bagi pemajuan sebelum atau selepas penguatkuasaan Akta 757
- Untuk mengenal pasti kos sebenar bagi penyelenggaraan skim strata

Soal selidik ini adalah untuk **badan pengurusan strata** sahaja.

Soal selidik ini hanya mengambil masa selama **15 minit** untuk disempurnakan.

LATAR BELAKANG STRATA

Kod Enumerator:	Tarikh:
Nama Skim / Perumahan: PANGSAPURI MEGARIA ROS	
Lokasi Strata:	
Kategori Perumahan:	Perincian Hartanah Strata:
Program Perumahan Rakyat (PPR)	Bilangan Unit [] unit
Kos Rendah	Bilangan Blok [] unit
Kos Sederhana Rendah	Bilangan Tingkat [] unit
Lain-lain:	Bilangan Parkir [] unit
.....	Bilangan Lif [] unit

BAHAGIAN A: PROFIL BADAN PENGURUSAN STRATA

Arahan: Sila tandakan (/) pada jawapan yang betul mengenai diri anda.

34. Jenis Penjawatan dalam Organisasi Badan Pengurusan

<u>Sepenuh Masa</u> []	<u>Pengarah Urusan</u> []
<u>Separuh Masa</u> []	<u>Pengurus Projek</u> []
<u>Kontrak</u> []	<u>Pengurus Kewangan</u> []
<u>Gantian Sementara</u> []	<u>Pengurus Pengeluaran</u> []
Lain – lain Jawatan:	<u>Penyelia Pengurusan Fasiliti</u> []
.....	<u>Penyelia Pentadbiran</u> []
	<u>Staff Eksekutif</u> []
	<u>Staff Teknikal</u> []
	Lain – lain Jawatan:.....

BAHAGIAN A: PROFIL BADAN PENGURUSAN STRATA

35. Lengkapkan maklumat latar belakang badan pengurusan yang berkenaan.	
Latar Belakang	Maklumat
Klasifikasi Badan Pengurusan	Joint Management Body JMB []
	Management Corporation (MC) []
	Ejen Pengurusan []
	Lain – lain:
Nama Pengurusan/ Nama Syarikat/ Nama Individu
Tempoh Operasi Semasa	JMB: MC:
Nyatakan Tahun pengeluaran/ pengambilalihan yang berikut (bulan/tahun):	JMB: MC:
Adakah Badan Pengurusan mempunyai piawaian kaedah peralihan pegurusan yang tersendiri?	YA [] TIDAK []
Adakah pihak pengurusan menjalankan tinjauan keadaan bangunan (<i>Building Condition Survey, BCS</i>) semasa pengambil alihan?	YA [] TIDAK []
36. Sepanjang Operasi Badan Pengurusan anda, pernahkah pihak anda mengendalikn pernah Mesyuarat Pengurusan Strata?	Nyatakan bilangan mesyuarat:/ tahun
37. Nyatakan Tahun pengeluaran/ pengambilalihan yang berikut: Sila jawab dalam bentuk (bulan/tahun)	Mm/yy
	Vacant Possession
	CCC
	DLP
38. a. Apakah senarai kemudahan bersama yang disediakan di hartanah strata anda? <i>Tandakan (/) pada yang berkenaan.</i>	
b. Antara kemudahan yang berikut, yang manakah masih dalam tempoh Jaminan (Warranty)? <i>Tandakan (/) pada yang berkenaan.</i>	
c. Secara keseluruhan, bagaimanakah anda menilai keadaan kemudahan/ fasiliti di kediaman strata semasa anda mula beroperasi? (1 = Sangat Tidak Baik / 2 = Tidak Baik / 3 = Baik / 4= Sangat Baik)	
Tempoh Jaminan (Warranty)	Kemudahan
[] Dewan Serbaguna	1 2 3 4
[] Kolam Renang / Kolam Kanak-kanak	
[] Tempat Pembuangan	
[] Kawasan Landskap	
[] Pagar	

BAHAGIAN A: PROFIL BADAN PENGURUSAN STRATA					
[]	Peti Surat				
[]	Surau				
[]	Kawasan Ruang Parkir				
[]	Ruang Parkir Pelawat				
[]	Alatan Senaman Luar (<i>Outdoor Gym</i>)				
[]	Ruang Terbuka				
[]	Lif/ Elevator				
[]	Taman Permainan				
[]	Pondok Pengawal				
[]	Gelanggang Serbaguna				
[]	Tangga				
[]	Tangki Paip Utama				
[]	Kawasan Ruang Niaga				
Nyatakan Lain-lain :					
(1).....					
(2).....					
(3).....					
39.	Adakah hartanah strata ini memiliki insurans bangunan?	Ya []	Tidak []		
40.	Antara yang berikut, manakah prosedur yang dilakukan oleh badan pengurusan dalam proses peralihan pengurusan? (Contoh: JMB → MC)	Prosedur		YA	TIDAK
	1 Pemindahan semua baki wang dalam Akaun Penyelenggaraan dan Akaun Simpanan dana, setelah pembayaran semua perbelanjaan yang telah dibebankan dengan betul ke akaun, ke badan pengurusan bersama;	[]	[]	[]	[]
	2 Penubuhan Pejabat Pentadbiran oleh Pemaju	[]	[]	[]	[]
	3 Penyerahan Akaun yang diaudit dari akaun penyelenggaraan dan akaun dana simpanan atau, jika akaun tersebut belum diaudit, akaun yang tidak diaudit;	[]	[]	[]	[]
	4 Penyerahan semua kawasan pembangunan / strata;	[]	[]	[]	[]
	5 Penyerahan semua rekod yang berkaitan dengan penyelenggaraan dan pengurusan bangunan atau tanah yang berkenaan dalam pembahagian petak dan harta bersama dalam kawasan pembangunan;	[]	[]	[]	[]
	6 Penyerahan semua Invois, Resit dan Baucar pembayaran berkenaan Akaun Penyelenggaraan dan Akaun dana simpanan	[]	[]	[]	[]
	Lain-lain:				
41.	Apakah isu-isu yang timbul semasa proses peralihan tugas pengurusan antara JMB dan/atau MC? (1 = Tidak Pernah, / 2 = Jarang, / 3 = Kerap, / 4 = Sangat Kerap)	Isu-isu			
	1 Akses kepada Akaun Penyelenggaraan dan Akaun Dana Simpanan	1	2	3	4
	2 Pelepasan maklumat dari Badan Pengurusan yang terdahulu				
	3 Pengurusan Dana Simpanan				
	4 Rekod penerimaan yuran pengurusan				
	5 Rekod perolehan dan transaksi				
	6 Pendedahan mengenai pertikaian yang tidak selesai				
	7 Penyelenggaraan yang kurang baik				
	Lain-lain:				

BAHAGIAN A: PROFIL BADAN PENGURUSAN STRATA

42. **Adakah pihak JMB/MC dimaklumkan berkenaan perkara-perkara berikut?**

Prosedur	YA	TIDAK
1. Aktiviti pindah keluar / masuk Pemilik Petak yang baru	[]	[]
2. Aktiviti pindah keluar / masuk Penyewa kediaman	[]	[]
3. Aktiviti keramaian di unit petak	[]	[]
4. Pernahkah timbul pertikaian antara pemilik kediaman dan penyewa?	[]	[]
Lain-lain:		

BAHAGIAN B: PENYELENGGARAAN DAN PENGURUSAN STRATA

43. **Berdasarkan pegalaman anda menguruskan skim strata ini, nyatakan kemudahan / perkara yang memerlukan kos dan perhatian penyelenggaraan yang tinggi atau rendah.**
(1 = Sangat Rendah, / 2 = Rendah, / 3 = Sederhana, / 4 = Sangat Tinggi)

Kemudahan	1	2	3	4
1. Kerja Pembaikan & Penyelenggaraan Umum				
2. Bekalan Elektrik				
3. Penyelenggaraan Sistem Elektrik				
4. Penyelenggaraan Sistem Pemadam Kebakaran				
5. Penyelenggaraan Sistem Generator				
6. Penyelenggaraan Sistem Lif / Elivator				
7. Penyelenggaraan Sistem Penghawa DIngin				
8. Pengurusan Badan Keselamatan				
9. Pembaikan dan penyelenggaraan sistem Interkom				
10. Bekalan Air				
11. Penyelenggaraan Kolam Renang / Kolam Kanak-kanak				
12. Penyelenggaraan sistem Kumbahan				
13. Pengurusan pembuangan sampah				
14. Selenggara kawasan parkir kereta				
15. Kawalan serangga				
16. Perkhidmatan pembersihan				
17. Penyelenggaraan Landskap				
18. Papan Tanda & Informasi				
19. Caj Bank				
20. Fi Audit				
21. Perbelanjaan Pejabat Pengurusan				
22. Perbelanjaan Staf				

Lain-lain:

44. **Pada pendapat anda, apakah faktor yang mempengaruhi kadar caj pengurusan strata?**
(1 = Sangat tidak setuju, / 2 = Tidak setuju, / 3 = Setuju, / 4 = Sangat Setuju)

	1	2	3	4
1. Keadaan Bangunan Strata				
2. Keadaan Harta Bersama				
3. Pengurusan Skim Strata				
4. Jangka Hayat Bangunan Strata				
5. Skala Bangunan Skim Strata				
6. Senarai/jenis-jenis kemudahan Strata				
7. Lokasi hartanah Strata				
8. Keluasan Unit Petak				
9. Diskaun caj dan struktur pembayaran				

Lain-lain:

BAHAGIAN B: PENYELENGGARAAN DAN PENGURUSAN STRATA

45. **Apakah isu kritikal sepanjang operasi pengurusan strata?**
 [1 = Sangat tidak setuju / 2 = Tidak setuju, / 3 = Setuju, / 4 = Sangat Setuju]

Isu Kritikal		1	2	3	4
1.	Pengurusan Caj Pengurusan dan Dana Simpanan (<i>Sinking Fund</i>)				
2.	Pengutipan Caj Pengurusan dan Dana Simpanan				
3.	Kebocoran dari Unit Jiran				
4.	Pengurusan penyerahan dari pemaju ke JMB / MC				
5.	Penyertaan dalam Mesyuarat Agung				
6.	Pengeluaran Geran Strata yang lewat				
7.	Pengurusan Keselamatan Strata				
Isu Kritikal		1	2	3	4
8.	Pengurusan Badan Keselamatan				
9.	Keadaan Kemudahan yang Teruk				
10.	Pemindahan Dana Simpanan yang rendah dalam Akaun Pengurusan				
11.	Pembayaran Lewat oleh Pemilik Petak				
12.	Kacau-Ganggu Awam (Nuisance)				
13.	Isu Kebersihan				
14.	Pengurusan Kutipan Sampah				
15.	Kekangan Penyelenggaraan berkala				
Lain-lain:					

46. **Berapakah jumlah kutipan caj pengurusan dan penyelenggaraan yang dikenakan oleh badan pengurusan kepada pemilik petak?**

*Purata Jumlah Kutipan
 RM daripada
 Bilangan Petak*

47. **Apakah langkah pemulihan yang diambil oleh pihak pengurusan dalam menanggung kos hasil kelewatan penerimaan bayaran oleh pemilik tapak?**
 (Sekiranya Perlu)

48. **Apakah struktur bayaran caj pengurusan dan penyelenggaraan yang dipersetujui oleh kedua-dua pihak?**
 (Jika ada, Tandakan yang berkenaan)

Struktur		RM
Deposit (Semasa pindah masuk/ VP)		
Bayaran Sekali Gus		
Bayaran Bulanan		
Nyatakan Lain-lain		

49. **Apakah kos-kos lain yang ditanggung oleh pengurusan strata sepanjang tempoh operasi?**
 (Boleh tanda lebih dari satu jawapan)

Penyelenggaraan & pembaikan tahunan Jumlah: RM / setahun	[]
Cukai taksiran Jumlah: RM / setahun	[]
Bayaran premium untuk insurans Jumlah: RM / setahun	[]
Caj perkhidmatan Jumlah: RM / setahun	[]
Caj Promosi dan Iklan Perniagaan Jumlah: RM / setahun	[]
Lain-lain. Sila nyatakan:	

50. **Adakah anda mendapat sebarang jenis bantuan kewangan daripada kerajaan dalam membayar kos pengurusan strata?**

TIADA	[]
Bantuan sewaan/subsidi RM / setahun	[]
Pinjaman bonRM / setahun	[]
Nyatakan Lain-lain:	

BAHAGIAN B: PENYELENGGARAAN DAN PENGURUSAN STRATA																																																																																																																																									
51.	Adakah pihak pengurusan mengamalkan Kos Kitaran Hidup (<i>Life Cycle Cost, LCC</i>) dalam menentukan caj pengurusan dan penyelenggaraan?	Ya []	Tidak [] Sila nyatakan sebab:																																																																																																																																						
52.	Pernahkah pihak pengurusan menerima aduan berkenaan kadar caj pengurusan strata yang dikenakan ini adalah tidak berpatutan?	Ya [] Nyatakan Purata Aduan setiap bulan: #	Tidak []																																																																																																																																						
53.	Dalam tempoh 5 tahun, berapa kerap caj penyelenggaraan yang telah dinaikkan? (Nyatakan yang berkenaan)	Bilangan kenaikan caj: kali [] Kenaikan daripada RM..... kepada RM..... [] TIADA Kenaikan Caj Penyelenggaraan dalam Tempoh 5 tahun []																																																																																																																																							
54.	Nyatakan cara pembayaran caj pengurusan dan penyelenggaraan oleh pemilik petak kepada badan? (Nyatakan yang berkaitan)	Pemindahan wang bulanan melalui bank [] Deposit Tunai Bulanan [] Deposit Cek Bulanan [] Cek bertarikh ke hadapan sehingga habis tempoh sewaan [] Lain-lain , sila nyatakan :																																																																																																																																							
55.	Adakah pihak pengurusan anda membenarkan pembayaran caj pengurusan dan penyelenggaraan secara ansuran (<i>Instalment</i>)?	Ya [] Ansuran: _____ bulan	Tidak []																																																																																																																																						
56.	<p>a. Berdasarkan pengalaman anda sebagai badan pengurusan strata, apakah jenis-jenis kerosakan yang dilaporkan kepada badan pengurusan strata? (1 = Sangat tidak setuju, / 2 = Tidak setuju, / 3 = Setuju, / 4 = Sangat Setuju)</p> <p>b. Berdasarkan kemudahan yang disediakan, yang manakah yang paling kerap diselenggara/dibaik pulih? (1 = Paling Jarang / 2 = Jarang / 3 = Kerap / 4 = Paling Kerap)</p> <table border="1"> <thead> <tr> <th rowspan="2">Jenis Kerosakan</th> <th colspan="4">a. Kerosakan</th> <th colspan="4">b. Kekerapan</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr><td>1. Paip Bocor/sumbat</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2. Kebocoran lantai / dinding</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>3. Bunbung</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>4. Tangki Air</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>5. Gutter / Rain Water Down Pipe</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>6. Dinding dalam / luar</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>7. Paip Pembentungan</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>8. Apron / Longkang</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>9. Tingkap guna sama</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>10. Tingkap Kediaman</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>11. Tembok Penahan</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>12. Taman Permainan</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>13. Pagar</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>			Jenis Kerosakan	a. Kerosakan				b. Kekerapan				1	2	3	4	1	2	3	4	1. Paip Bocor/sumbat									2. Kebocoran lantai / dinding									3. Bunbung									4. Tangki Air									5. Gutter / Rain Water Down Pipe									6. Dinding dalam / luar									7. Paip Pembentungan									8. Apron / Longkang									9. Tingkap guna sama									10. Tingkap Kediaman									11. Tembok Penahan									12. Taman Permainan									13. Pagar								
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BAHAGIAN B: PENYELENGGARAAN DAN PENGURUSAN STRATA

14. <i>Manhole</i>										
15. Rumah Sampah										
16. Surau / Dewan										
17. Kerosakan akibat Vandalisme										
Lain-Lain (1):										
Lain-Lain (2):										
57. Adakah pihak pengurusan kerap menerima pembayaran lewat bagi caj pengurusan daripada pemilik tapak?	Ya [] <i>Nyatakan bilangan pemilik petak yang bayar lewat:% (secara purata)</i>								Tidak []	
58. Antara berikut, tandakan langkah ketelusan pengurusan akaun pengurusan strata										
								YA	TIDAK	
1. Adakah pihak pengurusan memaparkan akaun pengurusan strata?										
2. Adakah pihak pengurusan memaparkan status akaun pengurusan strata?										
3. Adakah pihak pengurusan mengemaskini rekod akaun sejak penubuhan/ pengambilalihan operasi?										
4. Adakah pihak pengurusan mengeluarkan notis peringatan tempoh pembayaran caj pengurusan?										
5. Adakah pihak pengurusan mengeluarkan notis pembayaran lewat caj pengurusan strata?										
Lain-Lain:										

BAHAGIAN C: KUASA PENGURUSAN STRATA

59. Berdasarkan pengalaman anda sebagai badan pengurusan strata, tandakan peranan yang telah dimainkan oleh badan pengurusan strata sepanjang tempoh operasi? (1 = Sangat tidak setuju, / 2 = Tidak setuju, / 3 = Setuju, / 4 = Sangat Setuju)				
	1	2	3	4
1. Mengurus mesyuarat Penubuhan (MC)				
2. Mengurus harta bersama				
3. Menyelenggara harta bersama				
4. Menubuh satu kumpulan pengurusan kewangan bagi menampung perbelanjaan pentadbiran				
5. Menyelenggara pengurusan kewangan serta pentadbiran				
6. Menguruskan insurans bangunan dari aspek struktur dan harta bersama				
7. Mematuhi mana-mana notis atau arahan pihak berkuasa berhubung harta bersama				
8. Menyediakan senarai daftar yang mengandungi butiran lot, hak milik, bangunan, pemilik asal, MC petak, pemilik petak dan urus niaga.				

BAHAGIAN C: KUASA PENGURUSAN STRATA

9. Mengemaskini rekod pemilikan hartanah/kediaman				
10 Menyemak dan melantik penyedia perkhidmatan yang relevan				
11 Mengendalikan Mesyuarat Agung Tahunan & Mesyuarat Agung yang relevan untuk mengatasi isu-isu yang berkaitan dengan pembangunan				
12 Penyediaan perbelanjaan belanjawan dan pelaksanaan rancangan penyelenggaraan				
13 Lain-lain (1). Sila nyatakan:				
14 Lain-lain (2). Sila nyatakan:				
<p>60. Berdasarkan pengalaman anda sebagai badan pengurusan strata, tandakan bidang kuasa yang telah dikuatkuasakan oleh badan pengurusan strata sepanjang tempoh operasi? (1 = Sangat tidak setuju, / 2 = Tidak setuju, / 3 = Setuju, / 4 = Sangat Setuju)</p>				
	1	2	3	4
1. Mengenakan kutipan caj keatas pemilik petak				
2. Membeli, menyewa atau memperoleh harta alih untuk kegunaan berhubung harta bersama				
3. Menjana kewangan untuk menjalankan kuasa-kuasa atau tugas-tugas pihak pengurusan				
4. Mengambil tindakan terhadap pemilik petak sekiranya gagal mematuhi sebarang arahan/ peraturan				
5. Melaksanakan tugas-tugasnya serta menguatkuasakan undang-undang kecil				
6. Lain-lain (1). Sila nyatakan:				
7. Lain-lain (2). Sila nyatakan:				
<p>61. Sekiranya terdapat aduan, berapa harikah yang diperlukan untuk menyelesaikan atau meleraikan aduan / isu berkenaan?</p>		<p>..... jam / hari / minggu / bulan</p>		
<p>62. Berapa kerap aduan/ pertikaian timbul sepanjang tempoh pengurusan? (1 = Paling Jarang / 2 = Jarang / 3 = Kerap / 4 = Paling Kerap)</p>				
	1	2	3	4
1. Pengeluaran Geran Strata yang lewat				
2. Keengganan pemilik petak untuk membayar caj bulanan penyelenggaraan kawasan umum dan sumbangan lain kepada badan pengurusan				
3. Kelewatan pembayaran Quit Rent untuk Geran Induk (Master Title)				
4. Penyalahgunaan kuasa oleh pemaju dan pihak pengurusan				
5. Penyerahan pengurusan yang tidak lengkap dari pemaju kepada JMB / MC				
6. Kurangnya kerjasama penduduk dalam perumahan skim strata				

BAHAGIAN C: KUASA PENGURUSAN STRATA				
7. Penyertaan dalam Mesyuarat Agung yng kurang mendapat sambutan				
8. Kebocoran paip yang memberi kesan kepada unit petak lain				
9. Lain-lain (1). Sila nyatakan:				
10. Lain-lain (2). Sila nyatakan:				
63. Berdasarkan pengalaman anda sebagai badan pengurusan strata...				
	YA	TIDAK		
1. Adakah pihak pengurusan memiliki piawaian pengurusan pengendalian aduan yang tersendiri?				
2. Pernahkah anda mengalami apa-apa kesukaran untuk menjalankan kerja-kerja baik pembaikan segera atau tidak segera atau penyelenggaraan selesai?				
3. Pernahkah timbul pertikaian antara penduduk dan pihak badan pengurusan berkenaan pengurusan dan penyelenggaraan?				
4. Adakah anda berjaya menyelesaikan pertikaian tersebut?				
5. Pernahkah berlaku pertikaian antara pemilik kediaman dan penyewa yang melibatkan badan pengurusan?				
6. Pernahkah badan pengurusan menerima aduan berkaitan perjanjian sewa jangka pendek (Short Term Rental, STR) (contoh: airBNB)				
7. Lain-lain (1). Sila nyatakan:				
8. Lain-lain (2). Sila nyatakan:				
64. Bagaimana anda menyelesaikan aduan / pertikaian? (1 = Tidak Pernah, / 2 = Jarang, / 3 = Kerap, / 4 = Sangat Kerap)				
Kaedah Penyelesaian	1	2	3	4
Selesaikan terus dengan tuan rumah/ ejen hartanah/ pengurus hartanah				
Usaha pihak pengurusan sendiri				
Menghubungi organisasi / pihak berkuasa yang berkenaan. Sila nyatakan:				
Tribunal				
Tidak berbuat apa-apa				
Lain-lain. Sila nyatakan:				

END OF SURVEY – THANK YOU

APPENDIX IV: LIST OF TABUNG PENYELENGGARAAN PERUMAHAN (TPP) 2022 APPLICANTS

2020 PPP ORIGINAL APPLICATION LIST, LOW-COST CATEGORY

Type of Housing	Local Authority	Name of Development	Name of JMB / MC / Registered Residents Association
Low-Cost	MP Kajang	Pangsapuri Taman Harmoni Cheras, Taman Harmoni Balakong, Seri Kembangan	Badan Pengurusan Bersama Taman Harmoni Cheras
Low-Cost	MP Kajang	Pangsapuri Prima Cempaka 1, Kajang	badan Pengurusan Bersama Pangsapuri Prima Cempaka 1
Low-Cost	MP Kajang	Apartment Kenari ABCD, Taman Impian Ehsan, Balakong	Badan Pengurusan Bersama (JMB) Apartment Kenari ABCD
Low-Cost	MP Kajang	Rumah Pangsa Taman Bukit Mewah Fasa 3, Kajang	Badan Pengurusan Bersama RPKR Taman Bukit Mewah Fasa 3
Low-Cost	MP Kajang	Flat Taman Sri Indah, Jalan 4/1, Taman Sri Indah, 43200 Batu 11 Cheras, Balakong	Perbadanan Pengurusan Flat Sri Indah
Low-Cost	MP Kajang	Pangsapuri Kos Rendah Taman Cheras Utama	Badan Pengurusan Bersama Pangsapuri Kos Rendah Taman Cheras Utama, TCU2, Dewan Blok E, Jalan CU/1A, Taman Cheras Utama
Low-Cost	MP Kajang	Pangsapuri Harmoni Cheras, Balakong	Badan Pengurusan Bersama Taman Harmoni Cheras
Low-Cost	MP Kajang	Pangsapuri Orkid	Perbadanan Pengurusan Pangsapuri Orkid
Low-Cost	MP Kajang	Pangsapuri Murah Taman Bukit Mewah Fasa 6 (Blok D, E, F), Kajang	Perbadanan pengurusan pangsapuri murah taman bukit mewah fasa 6
Low-Cost	MP Kajang	Rumah Pangsa Kos Rendah Flat Citra, Taman Kajang Utama, Kajang	Perbadanan pengurusan flat citra
Low-Cost	MP Kajang	Rumah Pangsa Taman Cheras Permai	Badan pengurusan bersama rumah pangsa taman cheras permai
Low-Cost	MP Kajang	Pangsapuri Suakasih, Bandar Tun Hussein Onn, Cheras	Badan Pengurusan Bersama Pangsapuri Suakasih
Low-Cost	MP Kajang	Pangsapuri Pendekar, Taman Tun Perak, Cheras	Badan Pengurusan Bersama Pangsapuri Pendekar
Low-Cost	MP Kajang	Pangsapuri Kos Rendah Seri Anggerik, Seksyen 7, Bandar Baru Bangi	Badan Pengurusan Bersama Seri Anggerik Seksyen 7
Low-Cost	MP Kajang	Pangsapuri Teratai, Bandar Mahkota Cheras	Badan Pengurusan Bersama Pangsapuri Teratai
Low-Cost	MP Kajang	Pangsapuri Taman Megah Cheras	MC Megah Cheras 2
Low-Cost	MP Kajang	Apartment Kenari ABCD, Taman Impian Ehsan, Balakong	JMB Apartment Kenari ABCD
Low-Cost	MP Kajang	RPKR Taman Desa Mutiara, Sg. Jelok, Kajang	JMB RPKR Desa Mutiara
Low-Cost	MP Kajang	Taman Cheras Utama Fasa 3	JMB Pangsapuri Kos Rendah TCU 1, Blok b, Jalan CU1/A
Low-Cost	MB Shah Alam	Pangsapuri Valencia, Taman Sri Muda, Shah Alam	Perbadanan Pengurusan Valencia
Low-Cost	MB Shah Alam	Pangsapuri Mentari, Seksyen U5	Badan Pengurusan bersama Pangsapuri Mentari
Low-Cost	MB Shah Alam	Pangsapuri Seksyen 19/3, PKNS Blok 6-9, Seksyen 19	Badan Pengurusan Bersama Blok 6-9, Jalan Cangkul 19/3
Low-Cost	MB Shah Alam	Flat Kos Rendah Taman Alam Megah Fasa 3CD, Seksyen 28	Perbadanan Pengurusan Anggerik
Low-Cost	MB Shah Alam	Pangsapuri Anggerik 26, Seksyen 24	Perbadanan Pengurusan Anggerik 26 PN 7813 Blok 43, 44, 45 & 46
Low-Cost	MB Shah Alam	Pangsapuri Alam Megah Fasa 3E, Seksyen 28	Perbadanan Pengurusan Alam Megah Fasa 3E
Low-Cost	MB Shah Alam	Pangsapuri Blok 1-5 Jalan 19/15, Seksyen 19	Perbadanan Pengurusan PN 10422 Blok 1-5
Low-Cost	MB Shah Alam	Pangsapuri Utarid Subang, Seksyen U5	Perbadanan Pengurusan Kos Rendah Pangsapuri Utarid Subang
Low-Cost	MB Shah Alam	Flat Alam Megah Fasa 3B, Seksyen 28	Perbadanan Pengurusan Flat Alam Megah Fasa 3B

Type of Housing	Local Authority	Name of Development	Name of JMB / MC / Registered Residents Association
Low-Cost	MB Shah Alam	Flat Alam Megah Fasa 3A, Seksyen 28	Perbadanan Pengurusan Flat Alam Megah Fasa 3A
Low-Cost	MB Shah Alam	Flat Taman Bunga Negara MC1, Seksyen 27	Perbadanan Pengurusan TBN MC1
Low-Cost	MB Shah Alam	Flat Taman Bunga Negara MC9, Seksyen 27	Perbadanan Pengurusan TBN MC9
Low-Cost	MB Shah Alam	Pangsapuri Teratai, Seksyen U16	Badan Pengurusan Bersama Pangsapuri Teratai
Low-Cost	MB Shah Alam	Pangsapuri Rimau Indah, Seksyen 32	Badan Pengurusan Bersama Rimau Indah
Low-Cost	MB Shah Alam	Pangsapuri Sentosa, Seksyen U13	Badan Pengurusan Bersama Pangsapuri Sentosa
Low-Cost	MP Selayang	TAMAN PELANGI RAWANG	PERBADANAN PENGURUSAN TAMAN PELANGI
Low-Cost	MP Selayang	Flat Taman Daya, Kepong	FLAT TAMAN DAYA JMB
Low-Cost	MP Selayang	Apartment Dahlia A (Blok 1-5), Bandar Baru Selayang	PERBADANAN PENGURUSAN DAHLIA A (BLOK 1-5)
Low-Cost	MP Selayang	DESA AMAN PURI	PERBADANAN PENGURUSAN DESA SATU
Low-Cost	MP Selayang	TAMAN SELAYANG MAKMUR	PERBADANAN PENGURUSAN TAMAN SELAYANG MAKMUR
Low-Cost	MP Selayang	TAMAN SETIA RAWANG	JMB APARTMENT TAMAN SETIA RAWANG
Low-Cost	MP Selayang	SELAYANG SEJATI	JMB SELAYANG SEJATI
Low-Cost	MP Selayang	TAMAN SRI BATU CAVES	PERBADANAN PENGURUSAN TAMAN SRI BATU CAVES
Low-Cost	MP Selayang	RAWANG	PANGSAPURI KOS RENDAH TAMAN BUKIT RAWANG PUTRA
Low-Cost	MP Selayang	PINGGIRAN BATU CAVES	JMB PM 322 PINGGIRAN BATU CAVES (BLOK E,F,G,H,J,K,L DAN M)
Low-Cost	MP Selayang	BANDAR COUNTRY HOMES RAWANG	APARTMENT DAHLIA 2 BCH
Low-Cost	MP Selayang	BANDAR COUNTRY HOMES RAWANG	MC PALMA BCH
Low-Cost	MB Petaling Jaya	Rumah Pangsa Kos Rendah Blok A, B dan C, Jalan PJS 2C/2, Taman Medan Cahaya Fasa 2, 46000 Petaling Jaya	Perbadanan Pengurusan A,B dan C Taman Medan Cahaya
Low-Cost	MB Petaling Jaya	Rumah Pangsa Kos Rendah Blok D, E dan F, Jalan PJS 2C/2, Taman Medan Cahaya Fasa 2, 46000 Petaling Jaya	PERBADANAN PENGURUSAN BLOK D,E,F MEDAN CAHAYA
Low-Cost	MB Petaling Jaya	PANGSAPURI IXORA	MC IXORA
Low-Cost	MB Petaling Jaya	APARTMENT IDAMAN	JMB APARTMENT IDAMAN
Low-Cost	MB Petaling Jaya	RUMAH PANGSA TAMAN MEDAN CAHAYA D,E,F	MC TAMAN MEDAN CAHAYA D,E,F
Low-Cost	MB Petaling Jaya	APARTMENT HARMONI, DAMANSARA DAMAI	APARTMENT HARMONI
Low-Cost	MB Petaling Jaya	APARTMENT LESTARI, DAMANSARA DAMAI	JMB APARTMENT LESTARI
Low-Cost	MB Petaling Jaya	FLAT SRI MAHOGANI	FLAT SRI MAHOGANI
Low-Cost	MB Petaling Jaya	RUMAH PANGSA KOS RENDAH RAMPAI IDAMAN	JMB RUMAH PANGSA RAMPAI IDAMAN
Low-Cost	MB Petaling Jaya	PANGSAPURI KASIA	MC PANGSAPURI KASIA
Low-Cost	MB Petaling Jaya	FLAT TAMAN DESARIA FASA 5B	ABD HARIS BAHARAN
Low-Cost	MB Petaling Jaya	PANGSAPURI SRI MERANTI, PJU 1A	JMB PANGSAPURI SRI MERANTI
Low-Cost	MB Petaling Jaya	PANGSAPURI GUGUSAN DAHLIA	JMB GUGUSAN DAHLIA
Low-Cost	MB Petaling Jaya	Pangsapuri PKNS Blok A-P, Seksyen 17	Agen Pengurusan Perbadanan Pengurusan Blok A-P
Low-Cost	MP Ampang Jaya	Pangsapuri Kos Rendah 940, Pandan Indah	Badan Pengurusan Bersama 940, Pandan Indah
Low-Cost	MP Ampang Jaya	Pangsapuri Mega Indah	Badan Pengurusan Bersama Pangsapuri Mega Indah
Low-Cost	MP Ampang Jaya	Pangsapuri Intan	Badan Pengurusan Pangsapuri Intan
Low-Cost	MP Ampang Jaya	Pangsapuri Taman Ampang Mewah	JMB Pangsapuri Taman Ampang Mewah
Low-Cost	MP Subang Jaya	Blok D, Pangsapuri Putra Permai 3, Jalan Putra Permai 3, Taman Equine, Seri Kembangan	

Type of Housing	Local Authority	Name of Development	Name of JMB / MC / Registered Residents Association
Low-Cost	MP Subang Jaya	Blok E, F, G, H Pangsapuri Kos Rendah Taman Cheras Utama, Cheras	Badan Pengurusan Bersama (JMB) Pangsapuri Kos Rendah TCU
Low-Cost	MP Subang Jaya	Pangsapuri Permai Court, Taman Puchong Permai	Perbadanan Pengurusan Blok D1 - D4, Rumah Kos Sederhana Rendah Permai Court
Low-Cost	MP Subang Jaya	Taming Jaya Fasa 2C, L3-09, Jalan Taming Sari Satu, Taman Taming Jaya, Balakong	
Low-Cost	MP Subang Jaya	Flat 2H SS13 Subang Jaya	
Low-Cost	MP Subang Jaya	Pangsapuri Seri Jasa, Blok C, Taman Sungai Besi Indah, 43300 Seri Kembangan	Perbadanan Pengurusan Pangsapuri Seri Jasa, Blok C
Low-Cost	MP Subang Jaya	Blok A27 - A30	Perbadanan Pengurusan Blok A27 - A30
Low-Cost	MP Subang Jaya	Rumah Pangsa Mawar, Blok A, B, C	
Low-Cost	MP Subang Jaya	Pangsapuri Putra Permai 3	
Low-Cost	MP Subang Jaya	Pangsapuri Melor Taman Puchong Prima	Persatuan Permuafakatan Pangsapuri Melor
Low-Cost	MP Subang Jaya	Pangsapuri Kampung Aman Satu	Perbadana Pengurusan Pangsapuri Kampung Aman Satu
Low-Cost	MP Subang Jaya	Pangsapuri Puchong Utama Court 1	Perbadanan Pengurusan Puchong Utama Court 1
Low-Cost	MP Subang Jaya	Pangsapuri Seroja	Persatuan Penduduk Pangsapuri Seroja
Low-Cost	MP Subang Jaya	Pangsapuri Sri Begonia	Perbadanan Pengurusan Sri Begonia
Low-Cost	MP Subang Jaya	Pangsapuri Blok F5-F8 Puchong Prima	Perbadanan Pengurusan Pangsapuri Blok F5-F8 Puchong Prima
Low-Cost	MP Subang Jaya	Pangsapuri Sri Tanjung	Perbadanan Pengurusan Sri Tanjung
Low-Cost	MP Subang Jaya	Rumah Pangsa Kos Rendah Blok A27-A30	Perbadanan Pengurusan Rumah Pangsa Kos Rendah Blok A27-A30
Low-Cost	MP Subang Jaya	Pangsapuri Ceria	Perbadanan Pengurusan Pangsapuri Ceria
Low-Cost	MP Subang Jaya	Pangsapuri Seri Damai	Pangsapuri Seri Damai
Low-Cost	MP Subang Jaya	Pangsapuri Lili	Perbadanan Pengurusan Pangsapuri Lili
Low-Cost	MP Subang Jaya	Pangsapuri Elina	Perbadanan Pengurusan Pangsapuri Elina
Low-Cost	MP Subang Jaya	Pangsapuri Mawar Jaya	Agen Pengurusan JMB Pangsapuri Mawar Jaya, Jalan KP 4/1, Kota Perdana, Bandar Putra Permai, Seri Kembangan
Low-Cost	MD Hulu Selangor	Pangsapuri Kemuning	JMB Apartment Kemuning
Low-Cost	MD Hulu Selangor	Apartment Kenanga	JMB Apartment Kenanga
Low-Cost	MD Hulu Selangor	Apartment Seri Kembangan	JMB Apartment Seri Kembangan
Low-Cost	MD Hulu Selangor	Apartment Seri Lili	JMB Apartment Seri Lili
Low-Cost	MD Hulu Selangor	Pangsapuri Sri Anggerik 3	JMB Pangsapuri Sri Anggerik 3
Low-Cost	MD Hulu Selangor	Apartment Seri Kemboja	JMB Apartment Seri Kemboja
Low-Cost	MP Klang	Pangsapuri Bandar Bukit Tinggi 2, Klang	JMB BUKIT TINGGI 2
Low-Cost	MP Klang	Pangsapuri Kos Rendah Bukit Tinggi 1	JMB KOS BUKIT TINGGI 1
Low-Cost	MP Klang	Pangsapuri Samudera, Pulau Indah	Badan Pengurusan Bersama (JMB) Pangsapuri Samudera
Low-Cost	MP Klang	Pangsapuri Kos Rendah Taman Aman Perdana	Badan Pengurusan Bersama (JMB) Pangsapuri Aman Perdana
Low-Cost	MP Klang	Flat Taman Chi Liung Lot 12371 (Kos Sederhana Rendah)	Badan Pengurusan Bersama (JMB) Flat Taman Chi Liung Lot 12371
Low-Cost	MP Klang	Rumah Pangsa Kos Rendah Flat Seri Berembang, Pelabuhan Klang	
Low-Cost	MD Kuala Langat	Pangsapuri Blok EFG, Bandar Sungai Emas	Perbadanan Pengurusan (MC) Geran 98704
Low-Cost	MD Kuala Langat	Rumah Pangsa Impian, Bandar Saujana Putra	Badan Pengurusan Bersama (JMB) Rumah Pangsa Impian, Bandar Saujana Putra

**2020 PPP ORIGINAL APPLICATION LIST, LOW MEDIUM COST
CATEGORY**

Type of Housing	Local Authority	Name of Development	Name of JMB / MC / Registered Residents Association
Low Medium Cost	MP Sepang	Pangsapuri Teratai Taman Putra Perdana	Badan Pengurusan Bersama Pangsapuri Teratai Taman Putra Perdana
Low Medium Cost	MP Sepang	Pangsapuri Kenanga Taman Putra Perdana	Badan Pengurusan Bersama Pangsapuri Kenanga Taman Putra Perdana
Low Medium Cost	MP Sepang	Pangsapuri Rista Villa Taman Putra Perdana	Badan Pengurusan Bersama Pangsapuri Rista Villa Taman Putra Perdana
Low Medium Cost	MP Sepang	Pangsapuri Prima	Perbadanan Pengurusan Geran 52573
Low Medium Cost	MP Sepang	Pangsapuri Dahlia (Blok A, B, C, D, E)	JMB Pangsapuri Dahlia
Low Medium Cost	MP Kajang	Pangsapuri Vista Seri Putra, Blok K, Jalan Seri Putra 2/3, Bandar Seri Putra, Bangi, 43000 Kajang	MC Vista Seri Putra
Low Medium Cost	MP Kajang	Apartment Serindit, Taman Impian Ehsan 43300 Seri Kembangan	Badan Pengurusan Bersama Apartment Serindit
Low Medium Cost	MP Kajang	Pangsapuri Desa Mutiara, Sg. Jelok, Kajang	Badan Pengurusan Bersama Pangsapuri Desa Mutiara
Low Medium Cost	MP Kajang	Pangsapuri Waja Taman Tun Perak, Cheras	Perbadanan Pengurusan Geran 84177
Low Medium Cost	MP Kajang	Anggerik Villa II, Kajang	Badan Pengurusan Bersama Taman Anggerik Villa 2
Low Medium Cost	MP Kajang	Rumah pangsa Taman Asa Jaya, Kajang	Badan pengurusan bersama Rumah Pangsa Taman Asa Jaya
Low Medium Cost	MP Kajang	Pangsapuri Wira, Taman Tun Perak, Cheras	Perbadanan Pengurusan Geran 84176
Low Medium Cost	MP Kajang	Flat Taman Harmoni Indah	Persatuan Penduduk Flat Taman Harmoni Indah
Low Medium Cost	MP Kajang	Pangsapuri Kajang Perdana	JMB Kajang Perdana Jalan KP2
Low Medium Cost	MP Kajang	Pangsapuri Angsana, Bandar Mahkota Cheras	JMB Pangsapuri Angsana
Low Medium Cost	MB Shah Alam	Pangsapuri Flora 1, Jalan Asteroid U5/30A Seksyen U5, 40150 Shah Alam	Perbadanan Pengurusan Bersama Pangsapuri Flora 1
Low Medium Cost	MB Shah Alam	Pangsapuri PKNS Blok 15, 16, 17 & 18, Seksyen 8	Perbadanan Pengurusan PN 12148 Blok 15, 16, 17 & 18
Low Medium Cost	MB Shah Alam	Pangsapuri Taman Bunga Negara MC 8, Seksyen 27	Perbadanan Pengurusan TBN MC 8
Low Medium Cost	MB Shah Alam	Pangsapuri Taman Bunga Negara MC 6, Seksyen 27	Perbadanan Pengurusan TBN MC 6
Low Medium Cost	MB Shah Alam	Pangsapuri Anggerik 16, Seksyen 24	Perbadanan Pengurusan Anggerik 16 Blok 54, 55, 56, 57 & 59
Low Medium Cost	MB Shah Alam	Pangsapuri Blok 18, 19 & 20, Seksyen 6	Perbadanan Pengurusan PN 12159 Blok 18, 19 & 20
Low Medium Cost	MB Shah Alam	Pangsapuri Anggerik 21, Seksyen 24	Perbadanan Pengurusan Anggerik 21 PN 7815 Blok 22, 23, 24, 25, 26 & 27
Low Medium Cost	MB Shah Alam	Pangsapuri Cendana, Seksyen U16	Badan Pengurusan Bersama Pangsapuri Cendana
Low Medium Cost	MB Shah Alam	Pangsapuri Jalan Rajawali 6/6, Blok 3, 4, 5, 7 & 8, Seksyen 6	Perbadanan Pengurusan PN 12156, Blok 3, 4, 5, 7 & 8
Low Medium Cost	MB Shah Alam	Perumahan PKNS, Seksyen 24	Perbadanan Pengurusan Anggerik 34
Low Medium Cost	MB Shah Alam	Pangsapuri Kiambang, Seksyen U16	Badan Pengurusan Bersama Pangsapuri Kiambang
Low Medium Cost	MB Shah Alam	Pangsapuri PKNS Blok 6, 7, 8, 13 & 14, Seksyen 8	Perbadanan Pengurusan PN 12146 Blok 6, 7, 8, 13 & 14
Low Medium Cost	MB Shah Alam	Pangsapuri Melor, Seksyen U16	Badan Pengurusan Bersama Pangsapuri Melor
Low Medium Cost	MB Shah Alam	Pangsapuri Anggerik 23 PN 7814 Blok 28, 29, 30 & 31, Seksyen 24	Perbadanan Pengurusan Anggerik 23 PN 7814 Blok 28, 29, 30 & 31
Low Medium Cost	MP Selayang	BANDAR BARU SELAYANG	PERBADANAN PENGURUSAN APARTMENT MELOR
Low Medium Cost	MP Selayang	Apartment Taman Greenwood Indah	JMB APARTMENT TAMAN GREENWOOD INDAH

Type of Housing	Local Authority	Name of Development	Name of JMB / MC / Registered Residents Association
Low Medium Cost	MP Selayang	SRI EHSAN KEPONG	APARTMENT SRI EHSAN
Low Medium Cost	MP Selayang	BUKIT RAWANG PUTRA	JMB PANGSAPURI KOS SEDERHANA TAMAN BUKIT RAWANG PUTRA
Low Medium Cost	MP Selayang	PINGGIRAN BATU CAVES	JMB DESA TEMENGGUNG
Low Medium Cost	MP Selayang	DESA AMAN PURI	PERBADANAN PENGURUSAN DESA DUA
Low Medium Cost	MP Selayang	Maplewood Apartment, Bandar Tasik Puteri	JMB MAPLEWOOD APARTMENT
Low Medium Cost	MP Selayang	Apartment Casa Ria, Bandar Country Homes, Rawang	CASA RIA APARTMENT MC
Low Medium Cost	MP Selayang	PINGGIRAN BATU CAVES	GEMILANG MC
Low Medium Cost	MP Selayang	BANDAR COUNTRY HOMES RAWANG	JMB LAS PALMAS
Low Medium Cost	MP Selayang	TAMAN INDAH PERDANA	PERBADANAN PENGURUSAN PM 895 (OPAL)
Low Medium Cost	MP Selayang	Apartment Camelia Court, Bandar Tasik Puteri	APARTMENT CAMELIA COURT JMB
Low Medium Cost	MP Selayang	BANDAR BARU SELAYANG	PERBADANAN PENGURUSAN APARTMENT CEMPAKA
Low Medium Cost	MP Selayang	BANDAR BARU SELAYANG	PERBADANAN PENGURUSAN APARTMENT KENANGA
Low Medium Cost	MB Petaling Jaya	PANGSAPURI MILIA	MC MILIA
Low Medium Cost	MB Petaling Jaya	PANGSAPURI GUGUSAN SEROJA	PERBADANAN PENGURUSAN GUGUSAN SEROJA
Low Medium Cost	MB Petaling Jaya	GUGUSAN SIANTAN	MC GUGUSAN SIANTAN
Low Medium Cost	MB Petaling Jaya	APARTMENT PERMAI, DAMANSARA DAMAI	MC APARTMENT PERMAI
Low Medium Cost	MB Petaling Jaya	GUGUSAN TERATAI	MC GUGUSAN TERATAI
Low Medium Cost	MB Petaling Jaya	APARTMENT SEAPARK	MC APARTMENT SEAPARK
Low Medium Cost	MB Petaling Jaya	SD APARTMENT 2	MC APARTMENT 2
Low Medium Cost	MB Petaling Jaya	PANGSAPURI LILY & ROSE	MC PANGSAPURI LILY & ROSE
Low Medium Cost	MB Petaling Jaya	APARTMENT MENTARI COURT	JMB MENTARI COURT
Low Medium Cost	MB Petaling Jaya	PANGSAPURI GUGUSAN DEDAP 1-5	JMB GUGUSAN DEDAP 1-5
Low Medium Cost	MB Petaling Jaya	FLAT PKNS TAMAN DATO HARUN	MC TAPAK MAHA
Low Medium Cost	MB Petaling Jaya	APARTMENT SAUJANA DAMANSARA DAMAI	JMB APARTMENT SAUJANA
Low Medium Cost	MB Petaling Jaya	APARTMENT IMPIAN	JMB APARTMENT IMPIAN
Low Medium Cost	MB Petaling Jaya	PANGSAPURI ROSA	ABDUL MANAN BIN MAT
Low Medium Cost	MB Petaling Jaya	APARTMENT PETALING UTANA	APARTMEBNT PETALING UTAMA
Low Medium Cost	MB Petaling Jaya	APARTMENT KAYANGAN	JMB PANGSAPURI KAYANGAN
Low Medium Cost	MP Ampang Jaya	Kedai/Pejabat/Apartment Taman Mulia Jaya	Badan Pengurusan Bersama Kedai/ Pejabat/ Apartment Taman Mulia Jaya
Low Medium Cost	MP Ampang Jaya	Pangsapuri Angsana	Badan Pengurusan Bersama Pangsapuri Angsana
Low Medium Cost	MP Ampang Jaya	Pangsapuri Sri Impian	Badan Pengurusan Pangsapuri Permai Sri Impian
Low Medium Cost	MP Subang Jaya	Subang Perdana Goodyear Court 2	Perbadanan Pengurusan Subang Perdana Court 2
Low Medium Cost	MP Subang Jaya	Subang Perdana Goodyear Court 7	Perbadanan Pengurusan Subang Perdana Court 7
Low Medium Cost	MP Subang Jaya	Pangsapuri Garnet	Badan Pengurusan Bersama (JMB) Pangsapuri Garnet

Type of Housing	Local Authority	Name of Development	Name of JMB / MC / Registered Residents Association
Low Medium Cost	MP Subang Jaya	Pangsapuri Sri Kenanga	Perbadanan Pengurusan Pangsapuri Sri Kenanga
Low Medium Cost	MP Subang Jaya	Pangsapuri Sri Anggerik 2	Perbadanan Pengurusan Pangsapuri Sri Anggerik 2
Low Medium Cost	MP Subang Jaya	Apartment dan Kedai Seksyen 7, Lestari Perdana	Badan Pengurusan Bersama, Apartment dan Kedai Seksyen 7, Lestari Perdana, Bandar Putra Permai
Low Medium Cost	MP Subang Jaya	Pangsapuri Kota Impian	Agen Pengurusan
Low Medium Cost	MD Hulu Selangor	Apartment Anggerik	JMB Apartment Anggerik
Low Medium Cost	MD Hulu Selangor	Apartment Mawar Taman Bunga Raya	JMB Apartment Mawar
Low Medium Cost	MD Hulu Selangor	Apartment Melor Bukit Beruntung	MC Apartment Melor
Low Medium Cost	MD Hulu Selangor	Apartment Dahlia Taman Bunga Raya	JMB Apartment Dahlia
Low Medium Cost	MD Hulu Selangor	Pangsapuri Seri Bakawali	JMB Pangsapuri Seri Bakawali
Low Medium Cost	MD Kuala Selangor	Pangsapuri Iris	JMB Pangsapuri Iris
Low Medium Cost	MD Kuala Selangor	Apartment Residensi Warnasari 3	JMB Residensi Warnasari 3
Low Medium Cost	MD Kuala Selangor	Apartment Residensi Warnasari 2	JMB Residensi Warnasari 2
Low Medium Cost	MD Kuala Selangor	Pangsapuri Rose	MC Rose
Low Medium Cost	MD Kuala Selangor	Pangsapuri Astana Alam 3	JMB Astana Alam 3
Low Medium Cost	MD Kuala Selangor	Pangsapuri Astana Alam 2	JMB Astana Alam 2
Low Medium Cost	MP Klang	Pangsapuri Bukit Kuda	Perbadanan Pengurusan (MC) Bukit Kuda
Low Medium Cost	MP Klang	Pangsapuri Pelangi Court	Perbadanan Pengurusan (MC) Seri Lalang
Low Medium Cost	MP Klang	Pangsapuri Taman Pendarmar Indah 2, Port Klang	Badan Pengurusan Bersama (JMB) Kos sederhana Taman Pendarmar Indah 2
Low Medium Cost	MP Klang	Pangsapuri Villamas	Badan Pengurusan Bersama (JMB) Pangsapuri Villamas
Low Medium Cost	MP Klang	Apartment Vista Indah Putra	Badan Pengurusan Bersama (JMB) Vista Indah Putra
Low Medium Cost	MP Klang	Pangsapuri Amazing Height	Badan Pengurusan Bersama (JMB) Amazing Height