

# ENHANCING RESIDENT SATISFACTION THROUGH EFFECTIVE COMMON AREA MANAGEMENT IN SRI LANKAN HIGH-RISE CONDOMINIUMS

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**Abstract:** High-rise condominiums have become a more sought-after residential real estate investment option due to the rapid urbanisation of Sri Lanka, where effective common area management (CAM) is crucial to enhance the satisfaction of the resident community and sustain property values. However, limited research has been conducted on CAM within the Sri Lankan condominium context. Therefore, this study aims to identify how effective CAM practices influence resident satisfaction and to propose recommendations for improvement. A mixed method approach based on the SERVQUAL model was used to explore the satisfaction of residents of high-rise buildings in Sri Lanka. Data collected from residents through surveys were analysed using statistical methods using SPSS software, while qualitative data obtained through structured interviews were analysed using content analysis. The findings revealed that tangibility, reliability, responsiveness, and assurance significantly influence resident satisfaction, with tangibility emerging as the strongest predictor. Qualitative findings further highlighted the importance of well-maintained facilities, security, cleanliness, and recreational amenities, while identifying communication gaps and limited community engagement as key areas requiring improvement. The study concludes that effective common area management significantly enhances resident satisfaction in Sri Lankan high-rise condominiums and provides practical recommendations for property managers and policymakers to improve service quality and residential living experiences.

**Keywords:** *Common Area Management, High-Rise Condominiums, Resident Satisfaction, SERVQUAL, Urban Living*

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## 1. INTRODUCTION

In response to the growing urban population and the corresponding demand for housing, the condominium concept has emerged as a widely adopted solution while addressing challenges in traditional suburban areas (Rosen & Walks, 2013; Workineh, 2022). According to Amira et al. (2018), residential construction in urban areas tends to develop vertically rather than horizontally. Further, high-rise residential development is becoming popular and attractive among urban dwellers (Nor et al., 2020).

Research focusing on low income high-rise housing in Colombo has revealed that residents are generally dissatisfied with the overall housing complex, with the provision of shared open spaces, communal facilities, and safety in common areas identified as critical factors for liveability (Fernando & Coorey, 2023). Research on high-rise buildings further demonstrates that residents' perceptions of facilities and maintenance services are significantly higher in well-maintained condominiums, though deficiencies in specific services such as lift operations can markedly reduce overall satisfaction (Sia et al, 2018). Further, Nor et al. (2020) identified that tenants in medium-cost high-rise residential buildings were more satisfied with management and facilities compared to tenants in low-cost developments. Similarly, Rahman et al. (2015) developed a theoretical framework to assess residents' satisfaction and dissatisfaction with facilities provided by private apartment owners in Bangladesh, while Riratanaphong & Limjaroensuk (2020)

investigated the influence of facilities management arrangements on occupant satisfaction. However, limited studies have specifically examined how effective management of common areas such as shared facilities, maintenance services, security, responsiveness, and community spaces contributes to resident satisfaction, particularly within the Sri Lankan condominium context. This highlights a significant research gap in understanding the relationship between CAM and resident living experiences.

Therefore, this study aims to investigate how effective common area management can enhance resident satisfaction in Sri Lankan high-rise condominiums and propose recommendations to improve the quality of condominium living.

## **2. Literature Review**

### **2.1. CONDOMINIUMS**

A condominium is a real property where an individual possesses ownership of a unit exclusively while collectively sharing ownership of common elements with all other unit owners (Linn, 2016). According to the Apartment Ownership Law of Sri Lanka 11/1973, "A condominium shall mean that a multi-story building divided into different units, all built on a single land tract". According to Eliyadura (2017), condominiums are defined as having horizontal and possibly vertical bounds of properties of adjacent units with common title deeds and ownership towards the land.

The benefits offered by such condominiums include access to certain facilities such as swimming pool, gymnasium, function halls and libraries (Maharaj, 2019). Within their ownership, residents often enjoy security services, gym facilities, and other recreational facilities. Chen (2021) emphasised that the maintenance and repair of these common areas are funded by all unit owners through monthly fees. However, condominium life requires a high level of commitment to coexistence, and thus interaction and compliance with collective bylaws are key to the efficient running of the condominium community (Linn, 2016).

### **2.2. CONDOMINIUM PREFERENCE**

The latest research on condominium preferences shows remarkable diversity among developed and developing countries. In Japan, condominiums appeal to varied groups (these include nuclear families, women, and older adults) in towns and cities (Kubo, 2020). The shift in this regard can be attributed to the family housing relationships and urban redevelopment. According to Sutantio (2022), the potential for sustainable construction practices in condominiums is being explored in Indonesia to address environmental concerns, economic balance, and the need for a balanced approach.

There are studies on condominium consumer preferences in Sri Lanka with some remarkable factors influencing the buyer's choices in terms of facilities (Mahamood & Ranasinghe, 2023). The influencing factors include satisfaction, aesthetic appearance, project complexity, and environmental impact (Rajapaksha and Ranasinghe, 2021). Furthermore, Sri Lankan households are now increasingly interested in cooking with clean fuels, wherein the specific factors of preference greatly influence the choice of fuel and stove (Dissanayake et al., 2022).

### 2.3. COMMON AREA MANAGEMENT IN CONDOMINIUM

Common areas can also be defined as shared by all residents to meet their diverse needs, allow them to live together comfortably within the complex, and enhance their quality of life individually. They are also used to help neighbours communicate, create a sense of community, and organise events, interactions, and gatherings in their respective units (Bandara et al., 2020).

### 2.4. SCOPE OF COMMON AREA MANAGEMENT

The scope of common area management in a condominium covers the essential functions required to maintain, secure, and operate shared spaces. Effective management scopes include maintenance and upkeep, security, utility and amenities management, financial management, and contract management, as depicted in Table 1.

*Table 1, Scope of Common Area Management*

<b>Scope</b>	<b>Description</b>	<b>Reference</b>
Maintenance and Upkeep	Maintaining a healthy and comfortable living environment in high-rise buildings requires the provision of essential facilities alongside adequate maintenance services that collectively meet the diverse needs of residents.	(Sia et al., 2018) (Gifford, 2007)
Security and Safety	The scope of safety and security in managing common areas in condominiums encompasses physical security, risk mitigation, and emergency preparedness, including essential components such as access control implementation, shared space security, and surveillance monitoring.	(Bottom, 2020)
Utility management	Utility management in condominiums consists of a variety of actions aimed at optimising the use and cost of resources in common areas, including monitoring and managing electricity, water, and gas consumption.	(Al-Ghaili et al., 2021; Mohammadi et al., 2022).
Amenities Management	Amenities management in condominiums is the process of planning, implementing, and maintaining common facilities to improve the quality of life for residents. This includes facilities that meet recreational and functional needs, such as swimming pools, fitness centres, and security systems.	(Abas et al., 2021; Kodilinye,2021)
Budgeting and Finance Management	The scope includes strategic financial planning, risk management, and transparent reporting as key elements of effective financial management.	(Permata, 2023)

### 2.5. FACTORS INFLUENCING RESIDENT SATISFACTION IN HIGH-RISE CONDOMINIUMS

Satisfaction depends on the physical quality of the property as well as the services provided. According to research by Bian and Choi (2023), the quality of facilities management, such as the maintenance of common areas, security, cleaning, and availability of services such as recreational facilities, affects resident satisfaction.

The satisfaction of the users or the residents has consistently been associated with the quality of life in high-rise condominiums. Nor (2020) described that this satisfaction reflects their perception of their living environment.

- **Building Design and Physical Environment**

Satisfaction with high-rise condominiums concerning the physical environment is found to be highly affected. Characteristics of architecture design, unit layouts, ventilation, and privacy greatly determine the overall comfort and well-being of the residents (Rujibhong, 2023; Zhang & Yan, 2023).

- **Property Management and Maintenance**

Property management and maintenance services greatly influence resident satisfaction in high-rise residential buildings. Efficient facilities management to ensure that common areas are maintained, in this light, is a vital factor influencing the satisfaction of the residents (Sia et al., 2018; Seetharaman et al., 2017). Kuo et al. (2010) noted that constructs of service quality, such as the competence of the service team and reliability of service performance, have a positive effect on resident satisfaction.

- **Socio-Demographic Factors**

Residents' expectations and preferences regarding lifestyle are shaped by their socio-demographic characteristics, including age, income, family composition, and cultural background (Jansen, 2012; Prasetyo & Adiarto, 2022).

- **Economic Considerations**

The affordability of the place and perceived value play a vital role, such that the residents will prefer the new buildings even when the rent is on the high side (Sia et al., 2018). According to Olanrewaju & Tan Chai Woon (2017), major contributors to housing choice are from economic aspects, including the prices of rent and service charges.

- **Social and Community Environment**

High-rise residential buildings bring their own set of challenges and opportunities for social interaction and resident satisfaction. They may widely promote feelings of social isolation and impersonal relations (Gifford, 2007), yet well-designed communal spaces and green areas may be an opportunity to enhance social cohesion and decrease loneliness (Nguyen et al., 2024; Lee et al., 2024).

## 2.6. SERVQUAL MODEL AND RESIDENT SATISFACTION

According to Kiran and Singh (2016), models such as SERVQUAL, SERVPERF, Kano are used to measure service quality. The SERVQUAL model compares residents' expectations of service quality with their perceptions to identify areas for improvement (Bekele, 2023). The SERVQUAL model is the oldest model used to determine where service meets the expectations. It was developed by Parasuraman et al. in 1985. It further categorises users into different levels of quality performance based on their SERVQUAL scores (Ladhari, 2009). The SERVQUAL scoring helps an organisation determine how to prioritise the improvement strategies for enhancing service quality (Karunasena et al., 2018). The model shows property managers that gaps between occupant expectations and actual performance can be addressed by improving their service areas, such as cleanliness, maintenance, and staff professionalism (Kwan et al., 2019). These include an assessment of customer satisfaction, brand loyalty, and company development in various cultural and service settings (Shi & Shang, 2020; Oh & Elango, 2024). By applying the SERVQUAL

model, property managers can systematically improve service quality, which in turn leads to improved occupant satisfaction, higher retention rates, and increased property value (Karunasena et al., 2018).

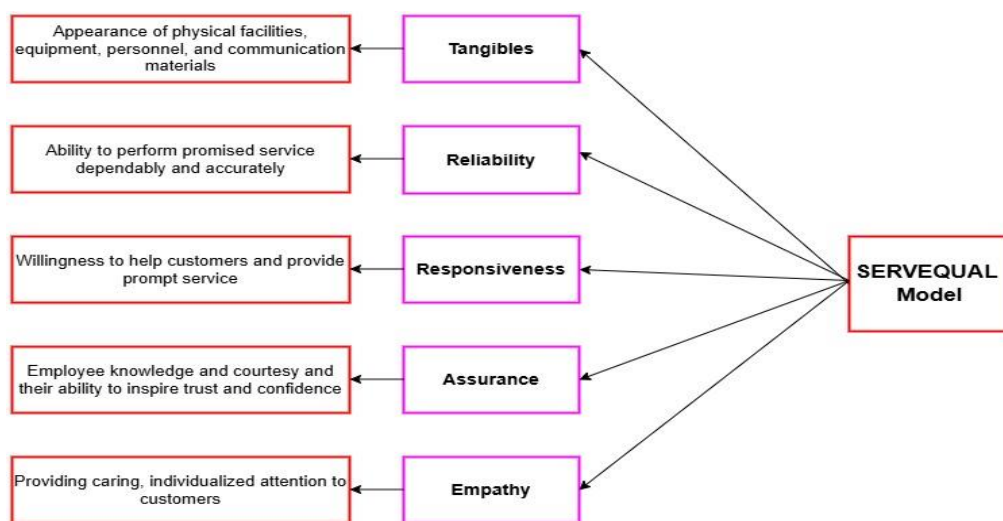


Figure 1, SERVEQUAL Model (Source: Bekele, 2023)

### 3. Methodology

The study was conducted through a mixed approach, where the survey and structured interviews were utilised as the main source of data collection.

Three (03) high-rise condominiums were selected to assess resident satisfaction with the effectiveness of common area management. The questionnaire was distributed to residents through property managers. There were 83 responses received within the given period from residents residing in various high-rise condominiums. This provides a broader understanding of the participants' background, which helps to contextualise their perceptions of CAM. The details of the respondents are depicted in Table 02.

Table 2, Respondents Profile

Time Period of Residency	Percentage of the Respondents
Less than Six Months	18.1%
6 Months – 1 Year	24.1%
1 Year – 2 Years	27.7%
More than 2 Years	30.1%

Collected quantitative data were analysed using SPSS for descriptive statistics, Relative Importance Index (RII), correlation, regression, and reliability testing. Qualitative responses received through structured interviews were examined using NVivo software through content analysis by coding to identify recurring themes and patterns. These interviews enabled the identification of potential improvements that need to be made through the evaluation of content.

The purposive sampling method was utilised when selecting respondents who presently reside in high-rise condominiums. The sample size was chosen according to Krejcie and Morgan's sample size table from 1970, which states that at least 30 people are required to respond for inferential statistics to work. The SERVQUAL model, developed by

Parasuraman, Zeithaml, and Berry in 1988, was employed as the research tool. It measures service quality in five domains, which are tangibles, reliability, responsiveness, assurance, and empathy. These dimensions corresponded with variables relevant to residential satisfaction and property management, as evidenced in the existing literature.

#### 4. Data Collection and Analysis

##### 4.1. QUESTIONNAIRE SURVEY ANALYSIS

###### 4.1.1. Assessment of the Consistency of the Survey Instrument

The reliability of the survey instrument is the consistency of the results obtained from it, that is, the extent to which it produces the same results when administered repeatedly under similar conditions. The reliability test reveals that the overall Cronbach’s Alpha value for the dataset is 0.959. This is in the excellent range (above 0.9), providing a conclusion that the survey instrument used in this study has a high level of internal consistency.

###### 4.1.2. Perceptions of residents on common area management

Descriptive statistics were applied to explain the basic characteristics of the collected data. It helped to present a simple summary of the sample and the measurements. The grand average score for CAM in terms of tangibility is 4.01, which is considered high. According to Shrestha's interpretive guide (2015), the majority of the respondents felt satisfied. The total standard deviation was 0.70, which shows that there are some differences of opinion among respondents on the tangibility dimension of service quality in common area management, particularly regarding maintenance aspects. Furthermore, when respondents were asked whether the maintenance records are accurate and reliable when addressing resident issues, 10.8% agreed, while 41.0% strongly agreed.

The grand average score for CAM in terms of responsiveness is 3.57, which is considered high. According to Shrestha's interpretive guide (2015), the majority of the respondents felt satisfied. The total standard deviation was 0.660, which shows that there are some differences of opinion among respondents on the responsiveness dimension of service quality in common area management, particularly accessibility and response times. With respect to individual items, when respondents were questioned about whether staff are proficient and experienced when it comes to responding to resident needs in common areas, a significant portion of respondents (43.4%) strongly agreed, 34.9% agreed, and 21.7% moderately agreed. The study showed that when respondents were asked whether safety measures implemented in common areas (e.g., security cameras, lighting) make residents feel secure, 20.5% agreed, while 33.7% strongly agreed.

Table 3, Perceptions of residents on common area management

Indicators	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	STD
	1	2	3	4	5		
Common areas are well-maintained	0	1.2	15.7	41.0	42.2	4.24	.759
Facilities in the common areas	1.2	4.8	1.5	44.6	34.9	4.07	.894

Maintenance of the building's features	1.2	6.0	41.0	36.1	15.7	3.59	.870
Staff Professionality	0	0	12.0	63.9	24.1	4.1	.593
Average						4.01	.70

#### 4.1.3. Correlation Between Service dimensions related to common area management and Resident Satisfaction

Pearson correlation analysis was conducted to measure the strength and direction of the relationship between two numeric variables (e.g., responsiveness and overall resident satisfaction). The Sig. value (p-value) is 0.001, and it is less than 0.05; it can be stated that the correlation between the tangibility dimension and overall resident satisfaction is statistically significant. Furthermore, the Pearson correlation coefficient value is positive, and it can be stated that the effect is positive, and the value of 0.657 shows a high positive correlation between tangible and overall resident satisfaction.

The correlation between the reliability and overall resident satisfaction is statistically significant. Furthermore, the Pearson correlation coefficient value is positive, and it can be stated that the effect is positive, and the value of 0.599 shows a moderate positive correlation between reliability and overall resident satisfaction. This indicates that when the common area is effectively managed consistently and dependably, the overall resident satisfaction increases, as indicated in Table 4.

Table 4, Correlation Between Service Dimensions

		Overall Satisfaction	
Reliability	Pearson's Correlation	0.599	1
	Sig. (2-tailed)	0.001	
	N	83	83
Tangible	Pearson's Correlation	0.657	1
	Sig. (2-tailed)	0.001	
	N	83	83
Responsiveness	Pearson's Correlation	0.577	1
	Sig. (2-tailed)	0.001	83
	N	83	
Assurance	Pearson's Correlation	0.503	1
	Sig. (2-tailed)	0.001	
	N	83	83
Empathy	Pearson's Correlation	0.519	1
	Sig. (2-tailed)	0.001	
	N	83	83

#### 4.1.4. Key Predictors of Resident Satisfaction in High-Rise Condominiums

In regression analysis, a "model summary" refers to a table that summarises the key statistics related to the overall performance of the model and the association of variables, including R-squared, R, adjusted R-squared, and significance of the model. Referring to the above table 5, the R value represents the simple correlation and is .725, suggesting a strong correlation. As depicted, the R2 value shows how much of the total variation in the dependent variable. It can be ascertained that Tangibility, Reliability, Assurance and Responsiveness on Overall Satisfaction at the 5% level of significance. But since the P value for the Empathy dimension is higher than 0.05, it can be stated that the Empathy

dimension does not affect the Overall Satisfaction when other independent variables are present.

*Table 5, Key Predictors of Resident Satisfaction Findings and Analysis of Structured Interviews*

Model	Unstandardised B	Coefficients Std. Error	Standardised Coefficients Beta	t	Sig.
(Constant)	1.717	.243		7.065	<.001
Tangibility	.447	.123	.648	3.633	<.001
Reliability	.435	.180	.588	2.421	.018
Responsiveness	.475	.221	.646	2.152	.035
Assurance	-.504	.184	-.886	- 2.734	.008
Empathy	-.235	.229	-.346	- 1.018	.312

*4.1.5. Strengths of Common Area Management in High-rise Condominiums in Sri Lanka*

Strengths of CMA in High-rise Condominiums in Sri Lanka were analysed through content analysis using NVivo 10 software. It was evident from their responses that common area facilities are modern, excellent, top-notch luxury and well-maintained. It is also revealed that well-maintained gyms, swimming pools, car parks, lobbies, and landscaping facilities have a significant contribution to resident satisfaction.



*Figure 2, Strengths of Common Area Management*

*4.1.6. Suggested Improvements for Common Area Management High-rise Condominiums in Sri Lanka*

Most of the respondents suggested that community engagement and communication needed to be improved. Their responses suggest that community engagement and communication are important elements in maintaining a collaborative living environment. This indicates that they are disconnected from each other, and there is concern about this,

as evidenced by the high number of responses that community engagement and communication need to be improved.

Area of Improvement	Count	Responses
Areas of improvement in the management of co	1	89
Community Engagement and Common Area	1	21
Facilities	1	20
Maintenance and Repair Efficiency	1	17
Management Decision	1	4
Parking Management	1	14
Safety and Security	1	5
Waste Management and Cleaning Service	1	8

Figure 3 - Suggested Improvements of Common Areas

#### 4.1.7. Impact of Common Area Management on Resident Living Experience

A significant number of respondents also had concerns about certain areas, with many of them stating that although the common area management has had a positive impact on the overall living experience, those areas need to be improved. According to respondents, management of the areas has had a positive impact on the overall lifestyle of the residents due to overall management competence.

#### 4.2. DISCUSSION OF RESULTS

The findings of this study confirm that effective common area management (CAM) has a strong influence on resident satisfaction in high-rise condominiums in Sri Lanka. Residents’ satisfaction was mainly shaped by the quality of shared facilities, cleanliness, safety, maintenance practices, responsiveness of management, and the overall condition of common spaces. Similar findings were reported by Sia et al. (2017) and Seetharaman et al. (2018), who highlighted that efficient maintenance and property management services are key factors influencing satisfaction in high-rise residential developments.

Among the SERVQUAL dimensions, tangibility emerged as the strongest factor affecting resident satisfaction. Residents placed greater importance on visible and physical aspects such as well-maintained lobbies, lifts, gyms, swimming pools, parking areas, landscaping, lighting, and cleanliness. This finding aligns with Bian and Choi, who found that the quality of facilities, maintenance, security, and recreational services directly affects residents’ satisfaction in condominium living. Similarly, Kuo et al. (2010) noted that the competence and performance of management teams positively influence residents’ perceptions of service quality. In the Sri Lankan context, this suggests that residents largely evaluate management performance based on the physical condition and upkeep of common areas they use daily.

Reliability and responsiveness were also identified as important contributors to resident satisfaction. Residents expected management teams to provide consistent services, respond quickly to complaints, and address maintenance issues effectively. These findings are consistent with Karunasena et al. (2018), who explained that SERVQUAL-based assessments help organisations to identify service areas that need improvement to increase customer satisfaction. The findings also support the argument of Sia et al. (2017) that maintenance quality is a key element of sustainable high-rise living. This indicates

that condominium management should move beyond reactive maintenance and focus more on preventive and responsive management practices.

Although assurance and empathy showed lower statistical significance in the quantitative analysis, the qualitative findings revealed that these factors still influence residents' trust and confidence in management. Residents appreciated professional staff behaviour, proper security arrangements, and management's willingness to understand and respond to their concerns.

The qualitative findings also showed that residents highly value modern and well-maintained shared facilities such as gyms, swimming pools, car parks, lobbies, and landscaped areas. These findings support Bandara et al. (2020), who identified the importance of community spaces in promoting social interaction among condominium residents in Colombo. However, the study also identified weaknesses related to communication gaps, limited resident engagement, and delays in follow-up actions. This is consistent with Gifford (2007) and Nguyen et al. (2024), who noted that poor social interaction and weak community engagement can negatively affect residents' experiences in high-rise environments.

Compared with global literature, the findings suggest that Sri Lankan condominiums face challenges similar to those experienced in many developing and rapidly urbanising countries. Issues such as delayed maintenance, service quality gaps, weak communication, and limited resident participation continue to affect resident satisfaction. Studies by Abas et al. (2021) and Olanrewaju and Woon (2017) similarly identified that management quality, maintenance efficiency, and perceived value strongly influence residential satisfaction. In Sri Lanka, these concerns are particularly important because residents expect the service charges they pay to be reflected in better facilities, safety, cleanliness, and management services.

Overall, the findings demonstrate that CAM is not only about maintaining physical spaces but also about creating a safe, responsive, and well-managed living environment that improves residents' comfort, trust, and quality of life. The study further contributes to existing knowledge by applying the SERVQUAL framework to the Sri Lankan condominium context and highlighting the importance of resident-focused management practices in high-rise developments.

#### 4.3. RECOMMENDATION ON ENHANCING RESIDENT SATISFACTION

This research suggests improving resident satisfaction in high-rise condominiums in Sri Lanka by improving each of the dimensions of SERVQUAL through better management of common facilities. Results indicate that though facilities, cleaning services, maintenance services, security services, and staff members' performance are strong, a lack of up-to-date facilities, parking space, gardens, power supply, functioning elevators, consistent cleaning services, prompt resolution of issues, and security issues lower satisfaction levels. Through both statistical and non-statistical interpretations, the dimensions that have an immense effect on resident satisfaction levels are 'tangibles,' 'responsiveness,' 'reliability,' 'assurance,' and 'empathy,' though 'empathy' has a relatively smaller effect. This research, therefore, suggests improving 'tangibles' through better facilities, 'responsiveness' through online grievance redressal systems, 'reliability' through preventive maintenance services, 'assurance' through security services, and 'empathy' through recreational facilities, gyms, and personal attention.

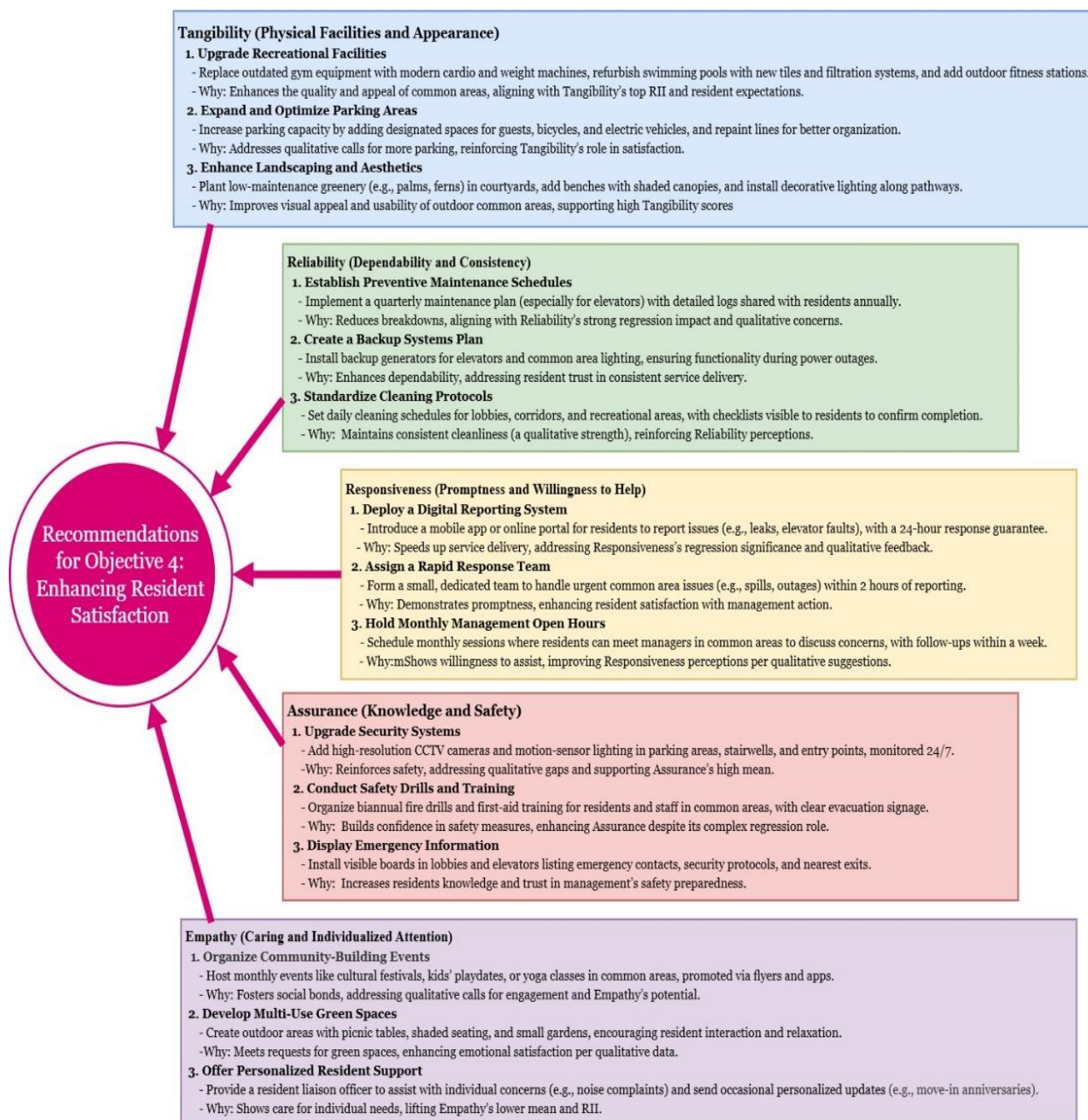


Figure 4 - Recommendations for Enhancing Resident Satisfaction

(Source: Author's Work)

## 5. Conclusion

The study asserts that efficient common area management is a major factor in elevating the level of satisfaction of the residents in high-rise condominiums in Sri Lanka. The research has gone through a systematic examination of legal, theoretical, and empirical viewpoints and has thus established a connection between the management of common areas and the residential experiences being positive. Findings verify that the tangible areas of management, management of facilities, cleanliness, safety, and physical upkeep, are

the most influential ones, which even good management practices can only support. Study demonstrates that common area management significantly influences resident satisfaction in high-rise condominiums in Sri Lanka, as evidenced by the strong Cronbach's Alpha reliability score of 0.959 and the regression model's R value of 0.725, confirming a strong correlation. The SERVQUAL dimensions of tangibility, reliability, assurance, and responsiveness were identified as statistically significant predictors of resident satisfaction, with tangibility recording a mean score of 4.01 and a Pearson correlation of 0.657, indicating that well maintained physical facilities are the strongest drivers of resident contentment.

The findings offer clear guidance to property managers and policymakers on improving the management of common areas in Sri Lankan high-rise condominiums by placing an emphasis on maintaining physical facilities, implementing a web-based grievance system, and enhancing regulations through the Condominium Management Authority. The research has also extended the applicability of the SERVQUAL Model into the context of high-rise residential buildings in Sri Lanka, revealing that the tangibility dimension was the most powerful predictor of resident satisfaction compared to the empathy dimension, indicating that residents of an emerging market value the visible quality of physical services more than the relational dimension of service. The study is limited to high-rise condominiums in Sri Lanka and is based on data collected at one point in time from surveys of resident perceptions. While resident satisfaction levels can be correlated with management activities through longitudinal research designs, longitudinal studies examining how resident satisfaction levels change over time because of changes in condominium management could also be performed. Finally, the research acknowledges that the strategic developments in CAM not only lead to residents' contentment and quality of life but also assist in the property value retention and proper condominium management.

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