IMPACT OF CONDOMINIUM MANAGEMENT SERVICE FACTORS ON SATISFACTION OF RESIDENTS IN VIETNAMESE CITIES

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Abstract

The development of apartment buildings is an inevitable trend of Vietnamese cities. Sustainable apartment development depends on the quality of apartment operation management services to ensure that the needs of residents are met. This research paper surveyed a sample of 255 residents living in a number of apartment buildings in Hanoi and Hai Phong to assess the satisfaction of residents and measure the impact of service factors on the building operation management of apartments to the satisfaction of residents. The study identified 6 groups of service components that have a decisive impact on the satisfaction of residents with the quality of management services of apartment operation management boards, thereby proposing some key implications and policies to improve the satisfaction of residents living in apartments.

Keywords: *Residents' satisfaction, service quality of operation management, utility management, management policy, apartment repair and maintenance, security, cleaning, landscape and entertainment*

1. Introduction

Vietnam is a developing country, the process of urbanization is taking place rapidly, the dense population concentration has created a huge demand for housing in urban areas. The demand for housing has increased, the land fund has narrowed, leading to the development of high-rise apartment buildings as an inevitable trend in Vietnam's urban areas. Housing businesses have been developing many multi-owner apartment buildings, including utilities to maximize human life. By 2020, 34.4% of the total population of Vietnam will live in urban areas. The population density in big cities like Hanoi is up to 9,343 people/km2. Preliminary statistics so far, the country has about 5,000 apartment buildings; in which concentrated mainly in Hanoi and Ho Chi Minh City. However, the process of residents moving into apartment buildings has generated many inadequacies, affecting residents' confidence in the apartment living environment.

The satisfaction of residents living in high-rise apartment buildings is not just about their apartments. Satisfaction depends on the provision of services and utilities such as water supply, electricity, access roads, drainage systems, waste treatment facilities as well as attention to prompt repair and maintenance, etc. depends on the management and operation

of the apartment building. The reality of apartment management in Vietnam over the past time has shown that there are still many shortcomings in the management and operation activities of apartment building management organizations. Organizations that manage and operate apartments also face the problem of increasing number of residents' complaints and disputes as well as other dissatisfaction issues.

Therefore, measuring the satisfaction of residents in high-rise apartment buildings has received attention from housing policy makers and housing businesses. With the potential controversy often occurring around the management activities of apartment buildings, there have also been studies on people's satisfaction focusing on the quality of housing services in general. However, to ensure the satisfaction of residents living in apartment buildings, it is necessary to pay attention to the quality of services that apartment management organizations provide in more detail. The evidence to date shows that there is a lack of in-depth studies on the apartment services provided by apartment management organizations and the satisfaction of residents with the services they receive.

The quality of apartment building operation management services is very important to maintain the operation of the building. That must be ensured through the commitment and efforts of the apartment management board in regularly reviewing the quality of building operation services, in order to bring satisfaction to residents. Therefore, the requirement to improve the provision of apartment building management services to support and maintain the general activities of the apartment complex becomes increasingly urgent. The reality of apartment building management poses an urgent need to study and assess the satisfaction of residents with the quality of apartment building operation management services in Vietnamese cities in order to improve management activities. apartment buildings, improving the quality of apartment services for residents.

2. Literature Review

The satisfaction of people living in the apartment is the satisfaction of the place to live and the living environment in the apartment. Researchers agree that occupant satisfaction is a multidimensional concept that reflects residents' aggregate assessment of the apartment living environment. The assessment of residents' satisfaction with the elements of apartment building operation management services helps apartment management organizations understand the needs of residents and improve the quality of apartment operation management services. (Abolade et al., 2014). Therefore, measuring resident satisfaction with apartment operations management services plays an important role in improving the performance of apartment management (Abolade et al., 2014).

The available studies show that the quality of apartment building operation management services directly affect the satisfaction of residents. The service elements of apartment operation management include housing management policy, repair and

maintenance, security, cleaning, landscaping and entertainment, management of utilities. These six groups of operational management service elements are the basic causes of residents' satisfaction/dissatisfaction. Below is the relationship between these factors and the satisfaction of apartment residents.

Utilities management is an important component of apartment management, including all utilities serving the population, such as energy services, water supply, telecommunications, gas supply and use. These services are guaranteed by service companies based on contracts signed with residents. The apartment service management organization coordinates with other providers to ensure the functionality of utilities and interacts with residents to ensure that residents receive these services smoothly. Availability of basic services, such as electricity, water supply and drainage in an area that is well linked to other parts of the city, infrastructure, and guaranteed ownership are considered indicators. number of good quality accommodation (Ibem, 2011). Therefore, it is necessary to study the quality of management of utilities and it is necessary to identify this as an important variable affecting the satisfaction of residents.

Hypothesis H1: The quality of utility management has a positive impact on the satisfaction of residents for apartment building management and operation services.

Several existing studies have examined the impact of apartment management policy on resident satisfaction (Paris and Kangari, 2005; Gurstein and Small, 2005; James et al., 2009). Management policies are considered an important part of the apartment environment (Ahlbrandt and Brophy, 1976; Sadacca et al., 1974; Bechtel 1973;). Researchers have shown that resident satisfaction is positively correlated with apartment management's certainty in enforcing the rules and management's ability to respond to residents' needs. These studies point to the direction of improving apartment operations management services as a way to increase resident satisfaction (Ahlbrandt and Brophy, 1976). After that, a large number of studies on housing management, which emphasized the importance of management policy for resident satisfaction (Ariff and Davies 2011; Pfrang 2015; Boyne and Walker 1999).

Hypothesis H2: The quality of housing management policy of the apartment building management board has a positive impact on the satisfaction of residents about apartment operation management services.

Apartment buildings also require adequate and effective repair and maintenance to avoid damage, affecting people's health and life (Ishak et al., 2007). Building maintenance is defined as work "in addition to daily and regular cleaning, necessary to maintain the performance of the building structure and its services" (BSI 1986, cited in Wood 2009). Alternatively, Wood proposes a shorter definition for building maintenance as "the sum total of all the work that keeps the building running efficiently" (Wood 2009). Maintenance and repair play a role. management of apartments and residents' satisfaction in Scotland (Croal

et al., 2003) It is clear that maintenance is a factor that has a strong impact on overall apartment satisfaction. Therefore, it is necessary to study the factors related to maintenance contractors that affect the satisfaction of residents.

Hypothesis H3: Service quality of facilities management, repair and maintenance has a positive impact on residents' satisfaction with apartment operation management services.

Security needs for people, and families or society is a natural and important need. Apartment buildings must always be safe and well protected. Security is one of the apartment building management services that has become important for any apartment complex. Apartment service management companies have found that in addition to their core business, non-core activities (such as cleaning and security) are part of their efforts to provide occupant satisfaction (Razali et al., 2007).

Hypothesis H4: Security service quality has a positive impact on residents' satisfaction with apartment building operation management services.

Cleaning service is an essential service in apartment buildings. Cleaning the apartment environment is considered a core activity of housing service management organizations (Binder, 1992; Park, 1998). Cleaning is a key function of apartment building management organizations to ensure the health of residents. Today, clean facilities are very important to health care and occupant satisfaction, and it is also one of the most expensive services when operating a building (Klungseth and Blakstad, 2016; May and Pitt, 2012). Therefore, the standard of environmental cleanliness will have a direct impact on resident satisfaction.

Hypothesis H5: Cleaning quality has a positive impact on residents' satisfaction with apartment operation management services.

Recreational activities and physical activity are indispensable requirements of the residential community in the apartment complex. There have been a number of studies on recreation and landscape sectors to assess their impact on resident satisfaction (Mahdavinejad et al., 2012; Lai and Yik (2011). Landscape and recreation is one of the main areas of apartment operation management services. Lai (2012) identified a number of factors related to landscaping and recreation, including aesthetics and tidiness of crops, pest control, environmental protection measures, recreational facilities (e.g. play equipment), and recreational facilities.

Hypothesis H6: Landscape and entertainment have a positive impact on residents' satisfaction with apartment building operation management services.

Combining the independent and dependent variables, we have a research model as follows
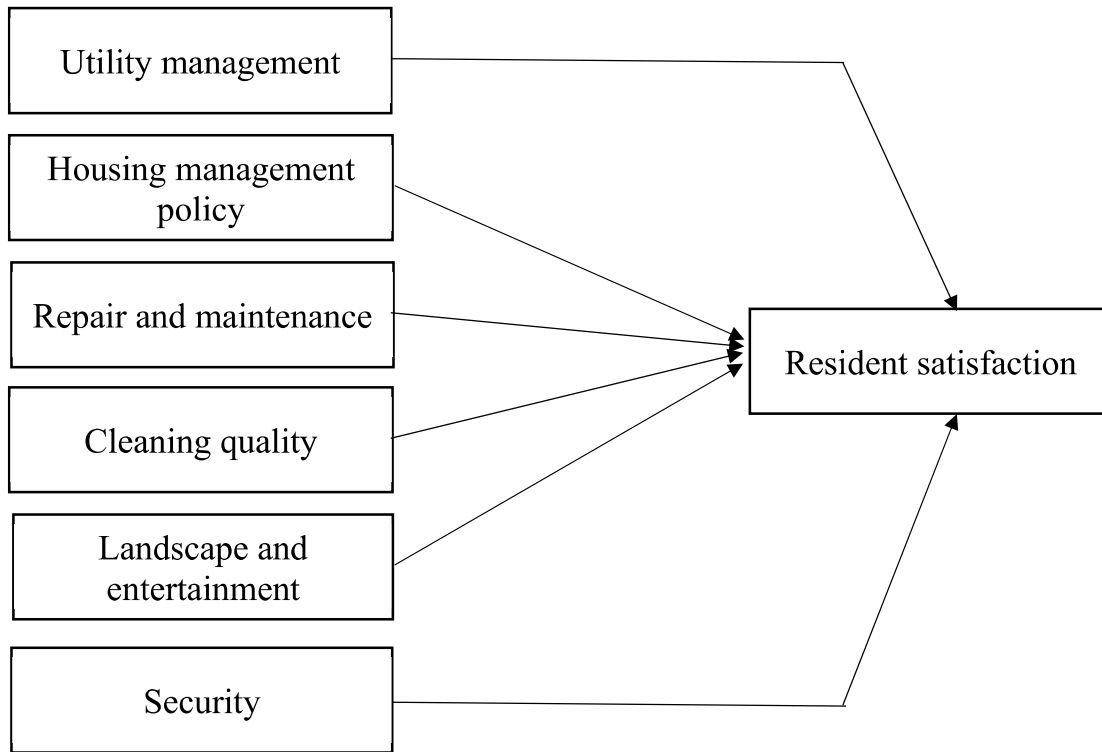
Figure 2.6: Research model of apartment building operation management service factors affecting the satisfaction of apartment residents

3. Method

In order to carry out the research objective of assessing the impact of apartment operation management service factors on the satisfaction of residents, the research process has been conducted through two phases, including qualitative and quantitative research. In phase 1, conducting qualitative research by directly interviewing a sample of 15 residents living in the apartment and 6 apartment managers to determine the components measuring 6 independent variables and dependent variable. The author used a semi-structured questionnaire to collect information for the identification of observed variables measuring factors in the research model to design the questionnaire. The Likert scale from 1 to 5 points (1: strongly disagree – 5: strongly agree) was also applied to measure observed variables.

Table 1: Observed variables measuring the independent variable

Independent variable	Observed variable	Code
Utility management	Clean and odorless drinking water	TI1
	Fresh air and proper airflow	TI2

Independent variable	Observed variable	Code
	Elevator and clear instructions system	TI3
	Good soundproofing system, no noise	TI4
	I can easily use gadgets when I need it	TI5
	Diverse utilities are provided 24/24 and are fixed immediately when there is a problem	TI6
Management policy	Building service charges are completely reasonable	CS1
	The notices of the building management are always transparent, clear and easy to understand	CS2
	The process of handling dispute and resolving complaints is specific, scientific, and fast	CS3
	The building management board always resolves disputes and complaints in a fair, civilized and reasonable manner	CS4
	Knowledgeable, courteous and attentive building management employees	CS5
Repair and maintenance	I see the building is under regular maintenance	SC1
	I found the maintenance and repair process to be very quick	SC2
	After maintenance and repair, the utilities work very well again	SC3
	I find the repair and maintenance employees friendly and polite	SC4
	I found the building maintenance employees to have good skills	SC5
Cleaning	I found the common areas to be very clean	VS1
	The cleaning employees completes the entire job	VS2

Independent variable	Observed variable	Code
	The cleaning employees is polite, considerate and attentive.	VS3
Landscape and entertainment	Green space is suitable	CQ1
	Fresh and pleasant air	CQ2
	I find it easy to move to different locations or move around in the apartment complex	CQ3
	The entertainment areas in the apartment are very diverse	CQ4
	The entertainment areas have modern facilities and serve my needs well	CQ5
Security	All areas in the apartment such as elevators, foyers, basements for parking, etc., all have strict security systems and surveillance cameras	AN1
	Polite and friendly security employees	AN2
	Security employees are well trained	AN3

Source: Collected by Author

Table 2: Observable variables measuring the dependent variable

Dependent variable	Code
Based on my apartment experience, I'm very satisfied	HL1
The apartment provides operational management services beyond my expectations	HL2
I am very happy to live in this apartment	HL3
I feel the decision to live in this apartment is very right	HL4

Source: Collected by Author

In phase 2, direct quantitative survey of residents living in apartment buildings. The survey sample size is 255 residents living in some typical apartment buildings in two cities, Hanoi and Hai Phong such as Time City, HH Linh Dam, Golden Tower in Hanoi and SHP Plaza, Bac Son, Vincity in Hai Phong. Data were analyzed by SPSS software including descriptive statistics and multiple regression equations to test the research hypotheses.

Table 3: Demographic characteristics of the study sample

Personal characteristics	Respondents	Quantity	Rate (%)
Time living in apartment	Less than 1 year	64	25.1
	1-2 years	99	38.8
	3-5 years	55	21.6
	6-8 years	24	9.4
	9-10 years	7	2.7
	From 11 years or more	6	2.4
Academic level	Below high school	4	1.6
	High school	11	4.3
	College	34	13.3
	University	182	71.4
	Postgraduate	16	6.3
	Doctor	8	3.1
Income	Under 5 million	41	16.1
	6-10 million	34	13.3
	11-15 million	39	15.3
	16-20 million	57	22.4
	21-30 million	23	9.0
	Over 30 million	61	23.9

Source: Collected by Author

4. Results

4.1. Testing model and research hypotheses

Analysis of the reliability of the scales

The scales are evaluated through reliability testing using Cronbach's Alpha coefficient and calculating the total variable correlation coefficient. Then the retained variables will continue to be analyzed using the exploratory factor analysis (EFA) tool. Use Cronbach's Alpha reliability coefficient method before analyzing EFA factors to eliminate nonconforming criteria because these nonconforming criteria (junk) can create spurious factors (Nguyen Dinh Tho, Nguyen). Thi Mai Trang, 2009). The Cronbach Alpha reliability coefficient only indicates whether the criteria are related or not, but does not indicate which criteria should be removed and which observed variables should be kept. Then, the calculation of the correlation coefficient between the total variable will help to exclude those criteria that do not contribute much to the description of the concept to be measured (Hoang Trong, Chu Nguyen Mong Ngoc, 2008).

The minimum condition to test the reliability of the scale using Cronbach's Alpha coefficient is that each factor in the research model must have at least 2 observed variables. All 9 variables in my research model meet this requirement.

Table 4: Cronbach's Alpha coefficient of each variable

Variable	No. of observed variables	Cronbach's Alpha coefficient
Complaint	7	0,924
Time for problem solving	3	0,781
Utility management	6	0,825
Management policy	5	0,852
Repair and maintenance	5	0,880
Cleaning	3	0,901
Landscape	5	0,866
Security	3	0,889
Overall satisfaction	4	0,912

Source: Collected by Author

According to (Nunnally, J., 1978), all the observed variables have the total correlation coefficient (Corrected Item - Total Correlation) >= 0.3, then the variable meets the requirements. In addition, the value of Cronbach's Alpha coefficient ensures the standard from 0.6 or more (Hoang Trong, Chu Nguyen Mong Ngoc, 2008). In addition, for the highest reliability, the value of Cronbach's Alpha coefficient when removing the variable needs to be smaller than the total Cronbach's Alpha coefficient. The results show that all 9 factors give Cronbach's Alpha coefficient > 0.6. At the same time, the observed variables of each scale have a total correlation coefficient >= 0.3, showing that all observed variables meet the standards (Nunnally, J., 1978).

Table 5: Cronbach's Alpha coefficient of each variable after adjustment

Variable	No. of observed variables	Cronbach's Alpha coefficient
Complaint	7	0,924
Time for problem solving	2	0,852
Utility management	6	0,825
Management policy	5	0,852
Repair and maintenance	5	0,880
Cleaning	3	0,901
Landscape	5	0,866
Security	3	0,889
Overall satisfaction	3	0,914

Source: Collected by Author

Factor analysis

Exploratory factor analysis (EFA) for independent variables

After verifying the reliability of the scale, the factors affecting the satisfaction of residents in the operation and management services of the apartment building are considered factors of utility quality, management policy, repair and maintenance, landscaping and recreation, cleaning, security as original. The author continues to perform exploratory factor analysis with the remaining 27 variables on SPSS software.

According to (Kaiser, H.F., 1974), to meet the requirement that EFA can be performed, the KMO > 0.5. The KMO value in this case is 0.861 > 0.5, which shows that the data is suitable for factor analysis, and Sig. Bartlett's Test = 0.000 < 0.05, which states that the observed variables are correlated in the population. In addition, According to Hair et al. (1998, 111), factor loading is an indicator to ensure the practical significance of EFA.

With a sample number of 255, the load factor is greater than 0.35, the EFA is sufficiently meaningful. So with the above variables I am qualified to do EFA.

After conducting EFA analysis with the above 36 observed variables, I found that the observed variables all belong to the groups suitable for the Rotated Component Matrix as follows:

Table 6: Rotated Component Matrix of Independent Variables

	Component							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
SC4	0,792							
VS2	0,775							
VS3	0,765							
SC3	0,730							
VS1	0,713							
SC5	0,694							
SC1	0,650							
SC2	0,591							
TI3	0,531							
CS5	0,497							
KN2		0,840						
KN4		0,829						
KN1		0,825						
KN6		0,819						
KN3		0,808						
KN7		0,799						
KN5		0,760						
CQ4			0,831					
CQ5			0,740					
CQ1			0,568					
CQ2			0,556					
CS1				0,691				
CS4				0,585				

CS3				0,582				
CQ3				0,492				
TI6					0,794			
TI5					0,557			
TI4					0,477			
AN3						0,682		
AN2						0,640		
AN1						0,553		
CS2						0,533		
TG2							0,887	
TG1							0,825	
TI1								0,749
TI2								0,700

Source: Collected by Author

According to (Hair, 1998) factor loading >= 0.35 to ensure the practicality of EFA. I found that all 36 observed variables satisfy this condition. Finally, the author obtained the extracted variance = 75,560% and the Eigenvalues index is 1,115, ensuring that the results of the analysis of exploratory factors are only accepted when the extracted variance is > 50% and Eigenvalues > 1. Thus, the independent variable including observed variables belonging to 6 groups of factors explains 75.560% of the dependent variable.

Exploratory factor analysis EFA for the dependent variable

Based on theories and related models in the above chapter, the dependent variable in the topic is defined as "Resident satisfaction" which is evaluated based on 4 observed variables. I conducted exploratory factor analysis EFA for the dependent variable on SPSS software. The results of the KMO and Barlett's test for the dependent variable show that the KMO value in this case reaches 0.746 > 0.5, which shows that the data is suitable for factor analysis and the Barlett's Sig = 0.000 < 0.05 says that the observed variables are correlated with each other. So I am qualified to do EFA for the dependent variable. The results of performing EFA show that all observed variables converge at 1 factor. At the same time, the extracted variance = 85.651% > 50% and the Eigenvalues index = 2,570 >1 ensure that the factor analysis results are accepted. Thus, the dependent variable consists of 3 observed variables belonging to 1 factor, which explains 85,651% of the variables.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.570	85.651	85.651	2.570	85.651	85.651
2	268	8.934	94.585			
3	162	5.415	100.000			

4.2. Regression model and conclusions about research hypotheses

The model's adjusted R2 squared value of 0.657 shows that 65.7% of the variation in the variable "Resident satisfaction" is explained by the variation of 6 independent variables ("Repair and maintenance", "Security", "Utility management quality", "Landscape and entertainment", "Cleaning", "Building management policy"). Durbin – Watson value = 1,845 ≈ 2 shows that there is no first order series correlation in the model and the collected data is good.

Next, testing the hypothesis about the overall fit of the model shows that the F-test value in the ANOVA table is equal to 82,162 and the Sig value of the test F = 0.000 < 0.05, shows that the R squared of the population is not 0. That means that the linear regression model built is suitable for the population.

Table 11: Regression analysis

Model		Unstandardized coefficient		Standardized coefficient	t	Sig.
		B	Standard Deviation	Beta		
1	(Constant)	-0.362	0.199		-1.818	0.070
	Utility management quality (QLTI)	0.098	0.045	0.105	2.199	0.029
	Repair and maintenance (SCBT)	0.176	0.076	0.149	2.324	0.021
	Management policy (CSQL)	0.168	0.068	0.142	2.481	0.014
	Security (AN)	0.181	0.062	0.179	2.926	0.004
	Landscape and entertainment (CQGT)	0.352	0.055	0.354	6.346	0.000
	Cleaning (VS)	0.084	0.040	0.087	2.087	0.038

Source: Collected by Author

The result shows the Sig value of all factors are less than 0.05, so the control variables are significant for the dependent variable and no variable is removed.

We have the regression equation:

HL = 0.105*CLTI + 0,149*VSSC + 0,142*CSQL + 0,179*AN + 0,354*CQGT + 0,087*VS

The equation helps to determine the degree of influence of the factors, thereby assessing the influence of each factor in the model on the dependent variable, which is the level of satisfaction of residents with apartment operation management services.

The results of assessing the influence of factors on the dependent variable are as follows: "Landscape and entertainment" has the greatest impact with an impact level of 0.354; followed by the factor "Security" with an impact level of 0.179; "Repair and maintenance" with an impact level of 0.149; "Management policy" with an impact level of 0.142. The two factors with the least impact are "Utility management quality" and "Cleaning" with levels of 0.105 and 0.087, respectively.

Table 12: Conclusions about research hypotheses

Hypothesis	Content	Conclusion
GT1	Good quality of utility management increases resident satisfaction	Approved
GT2	Good management policy increases resident satisfaction	Approved
GT3	Good maintenance and repair increases resident satisfaction	Approved
GT4	Good cleaning increases residents' satisfaction about apartment management and operation services	Approved
GT5	The more the entertainment and landscape ensures, the more satisfied residents will be	Approved
GT6	Good security increases residents' satisfaction about apartment operation and management services	Approved

5. Discussion and Conclusion

5.1 Policy implications for Apartment Management Board

Based on the research results, the author proposes a number of solutions for organizations providing apartment building operation management services, as well as for other stakeholders such as local authorities and apartment maintenance contractor.

Firstly, there should be a quick, reasonable, convenient and timely complaint handling process for residents. Based on the actual situation, the management of many apartments does not have a transparent and clear handling process for residents, causing frustration and reducing the satisfaction of residents living in the apartment. The time to handle urgent issues needs to be shortened by having a timely support unit right at the apartment building or members of the Management Board need to have high expertise and quick judgment to respond and handle any situations. In addition, taking advantage of technology, the Apartment Management Board should invest in equipment to monitor, anticipate and promptly support residents via hotline, website, fanpage, .. Based on these technological platforms, residents can directly contact the building managers when there is a problem and get immediate answers.

Second, the construction of a safe and healthy living space should be promoted for all residents living in the apartment. A safe, healthy living space includes quality entertainment landscape, cleaning service and a strict level of security. The management unit needs to actively renew entertainment facilities, aiming for diversity and high quality services to satisfy the needs of residents. In addition, the trend of green living is increasingly popular. The management needs to actively create a living space around the apartment building with a green park for residents to relax on holidays or in their free time. For security, improve the professionalism of the security system, assign guarding areas, reasonably protect, and ensure the security of residents' assets. For example, access to buildings requires resident cards (the number of cards is issued per household), the parking basement needs to be zoned for different vehicles, and staffs need to be on duty 24/24. In terms of hygiene, quality of cleaning services should be improved to ensure ventilation and proper airflow; common spaces and sewers should always be clean.

Third, focus on providing and optimizing utilities at the apartment, focusing on personalization and ease of use. The quality of essential utilities is one of the influential factors for residents' satisfaction with apartment management and operation services. With a diverse system of utilities, in order to maximize customer experience and increase satisfaction, the Management Board needs to regularly add, renew, repair and maintain them to ensure facilities quality. The facilities here include elevators, soundproofing systems, fire extinguishers, and etc. Residents need to be trained in the safe and proper use of utilities to be able to access and use them promptly when needed.

Fourth, regular monitoring and inspection should be focused. Inspection stage includes during, before and after service provision. This helps the management board to monitor and timely calculate possible problems, thereby having a timely plan to support residents, reducing complaints and unwanted dissatisfaction from residents. The inspection unit can carry out inspections in irregular or periodic occasions and with a person in charge, drawing repair experience after the inspection.

Fifth, human resources should be improved. The unit can implement human resource development activities by recruiting, training, and motivating employees. Businesses should establish a process and plan for employee management. Employees here include maintenance and repair staffs, cleaning staff, security staff, resident support staff such as the front desk department, etc. When employees are well trained and a comfortable working conditions, they will have a better working spirit and complete the assigned tasks with higher quality. In addition, it is necessary to consider correcting the current staff in terms of attitudes and ways of working with residents to increase professionalism and courtesy. Recruiting a new human resource team needs to be evaluated based on educational qualifications and practical experience as well as soft skills because apartment operation and management services require high customer contact.

5.1. Conclusion

This study examines the relationship between residents' satisfaction about the quality of apartment building operation management services with related factors including quality of utilities, security, cleaning, repair and maintenance, etc. The basic research hypotheses are given at the beginning with a positive relationship between the factors and proven in the above research results.

Through the research process, there are 6 factors that explain up to 65.7% of residents' satisfaction about apartment operation and management services, including "Repair and maintenance", "Security", "Utility management quality", "Landscape and entertainment", "" Cleaning", "Building management policy". All factors have a positive correlation with "Resident satisfaction". In particular, the factor "Entertainment and landscape" has the greatest influence on people's satisfaction about apartment operation and management services. Then followed by are "Security", "Repair and maintenance", Management policy", "Quality of utility management" and finally "Cleaning".

Good "repair and maintenance" can increase residents' satisfaction with apartment operation management services. However, residents have not yet appreciated this factor because most of the apartments are newly built, so this problem is not serious but the building management does good repair and maintenance. This result is different from some studies in developing countries that show that this is the most important factor determining the life cycle of an apartment building.

The "landscape and entertainment" with the biggest influence can be understood that the living space in the apartment is highly valued by residents. The greener and more natural the living space around the apartment is, the more diverse the entertainment facilities are, the more it will satisfy the needs of residents. For some families with young children, such as green parks, swimming pools or children's play areas are absolutely necessary. In fact, in

Hanoi and Hai Phong due to limited land fund, there are too few apartment buildings with landscape and entertainments to meet the requirements of residents.

In fact, the response and handling of complaints from residents of the apartment building management board is still slow, there are more than four complaints about the same problem. This can come from a complex service delivery process. In fact, the complaint handling process has many steps, which wastes time and creates difficulties when residents do it.

Overall satisfaction in terms of trust, understanding and service support should also be improved and promoted. The negative feedbacks of residents may come from the attitude, working style and qualifications of the building management employees.

The quality of utility management of the apartments has not really satisfied residents with an average score of 3.52/5. The cause may come from the long time of using and putting the utility into operation, the apartment has not been replaced and repaired and maintained regularly; or there is maintenance but the results after maintenance are not good, making residents unhappy.

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