

Cinta Kasih Flats Cengkareng: "Breaking Myth Slums Back To Slums" (Sustainable Housing Concept for a Better Life Residential Improvement in Jakarta Indonesia)

S. S. Moersidik^{1*}, S. W. Sarwono², B. T. Sugiato³, S. Damayanti¹

¹ Environmental Science Study Program, Post Graduate Program of Universitas Indonesia, Jakarta, Indonesia

² Department of Psychology, Faculty of Psychology, Universitas Indonesia, Jakarta, Indonesia

³ Department of Planology, Faculty of Engineering, Bandung Institute of Technology, Bandung, Indonesia

ABSTRACT

Cinta Kasih flats Cengkareng is a private housing project in Jakarta Indonesia that works, in terms of fulfilling expectations of the residents, laws and regulations. By using design development research, this research aims to (1) Explore constructs affecting contributing successful flats project development; (2) formulate the development direction of sustainable development of this model in urban areas as expected in order to improve quality of residents life.

Keywords: *successful flats, model for sustainable, flats development*

INTRODUCTION

Development of urban areas leads to population growth caused by natural increase and urbanization. Growing number of people in towns and cities calls for construction of adequate urban infrastructures: water, energy and telecommunication services as well as public transport and housing. Uncontrolled growth of population and use of land can affect the carrying capacity of a city. As the city environment has only limited carrying capacity, the quality of life of the city residents will be compromised, particularly of those with no sufficient access to the city's resources. Residents with high, medium and low income have different levels of access to these resources. The majority of people with high and medium income have no complaints about their access to the city resources, but this is not the case with those making only enough to survive. Cities have limited resources, and as people's needs grow, slums spring up. Residents of these areas have to deal with a problem of uninhabitable and limited number of residences and its implication of deteriorating standards of living of these people.

The government-run high-rise apartment construction scheme seems to have failed as evident from the following facts: many units are now empty/abandoned, units are offered to wrong target markets, there have been incomprehensive reviews of occurring problems in a number of districts, there is a public image that the project is a waste of fund and economic capital, and the quality of the environment and the standard of living of the tenants are degrading. As a result of this failure, the government has been unable to achieve the MDG targets of promoting the quality of human capital - wellbeing, health, law and order and peace. It means that the investment of economic capital in the failed projects is a waste, and no returns on investment can be expected. There is also another consequence of a greater scale: unsustainable and non-environment-friendly development resulting in no environmental benefits.

A number of recent studies of high-rise rent apartments conclude that these housing projects allegedly focus only on the physical aspect of development, i.e. the total of apartments built, and the economic aspect, i.e. how to make the units affordable by people, and deny the psychological aspect of the occupants (Masjkuri, 1992; Masyito, 2003; Jakarta Housing Development Service, 2006; Darrundono, 2006).

The researcher was therefore interested in conducting a study of aspects of human ecology, particularly those related to the perception, satisfaction and behavior of people renting apartment units on the grounds that they are the factors contributing to residents' quality of life and sustainability of their residences.

The researcher was also in the opinion that there are various psychological aspects affecting the quality of life of a resident and the sustainability of their residence, i.e. their expectation, perception and level of satisfaction regarding the following factors: physical performance of the apartment, social performance of the apartment, economic performance of the apartment, performance of the management of the apartment, and behavior of the resident of the apartment as a result of their perception of and satisfaction with their living in their unit. These psychological aspects will have impacts, on the physical, social and economic conditions of the project's residents, as seen, for example, in the Cinta Kasih project in Cengkareng, all of which have indicated that the project is successful and has the characteristics of sustainability. It was then decided to focus on the above subject of study in order for the researcher to identify reasons behind changes to the psychological aspects of the tenants living in the apartments under study.

Considering the above background and problem formulation, questions below are raised:

1. What constructs are responsible for the success of an apartment?
2. Which urban apartment development model works best as expected to promote the quality of living of the tenants for sustainability?

Objectives of the research are as follows:

1. Explore constructs affecting contributing successful apartment project development.
2. Formulate directions for the design of a model for an acceptable sustainable urban multistory housing development project for the promotion of standards of living of its resident.

LITERATURE REVIEW

Housing and Settlement

One of the most important and basic things that man needs to be able to survive is shelter or a place to settle down and interact with one another. Housing and settlement, according to Kusnopranto (*in* Kuswanto, 2005), is a place/location where people live in, that requires proper preparation of the surrounding environments. Therefore, facilities and infrastructures must be provided to meet the needs of people dwelling in that particular area. Thus housing and settlement are inseparable and closely linked, each complementing the other.

Environmental management is a key factor in the effort to improve the quality of a settlement because even the best improvement initiative will fail when no environment management is involved. Houses, roads, lighting and other facilities may be built and made available in a settlement, but as long as the environment is neglected, it will look dirty and filthy. A well-planned area with unmanaged environments will turn into a slum and a source of many diseases.

House

One of the basic and most important for mankind in sustaining life is to fulfill the need for housing or shelter to interact with each other. Houses are also very involved in nation-building, because no homes or places of permanent settlement, the presence of a person is formally difficult to be recognized (an identity / ID) so that the chance of formal entry into the world where development policies are directed to be closed. Rapoport (1987: 4-5) describes a house as a built environment, serving a variety of purposes including the all-protecting human and their possessions against any enemies (nature, other humans, animals and supernatural forces), providing a place for them to do activities, creating an area that is safe, as well as sounding off their identity and showing their social status.

Bintarto (1986:10), stating "housing is a place or area where people gather and live together, where they can use the local environment to maintain, establish, develop life". Law No. 4 of 1992 on Housing and Settlements (UUPP) mentioned about the definition of housing that is "as a group home that has a residential neighborhood function which is equipped with facilities and infrastructure environment." Housing and settlements according to Kusnoputranto (in Kuswartojo, 2005) is a place / location in which living human beings who needed to prepare an adequate environment so that essential infrastructure should be provided to meet the needs of the population in the settlements. Structuring settlements is an important factor in settlement improvement efforts.

Housing Concept

One of the types of homes are flats. According to Rapoport (in Damayanti, 2011), the home as built environment, has a variety of uses ranging from protecting human and above all his enemies disruption (natural, human, animal, and supernatural forces), provide a place for activity, create a safe area, until to emphasize social identity and show status. UU.No.16 flats by 1992, defined as: Building-storey building which was built in an environment which is divided into parts that are functionally structured in horizontal and vertical direction and is that each can be publicly owned and used primarily for shelter, which is equipped with the common, shared objects, and land together.

Environmental apartment must be equipped with facilities environment. Environmental Facility is supporting facility that serves to maintain and develop the economic, social, cultural, among others, can be a commercial building or shopping (economic aspect), open field, education, health, worship, government facilities and public services, parks and cemetery (location outside the home environment suitable apartment or town spatial planning). Environmental facilities are not built in vain, but closely related to the number of people who can be served as well as with distance services are able to reach. So in the planning of flats should be taken into account the completeness factor environmental facilities available on site, and which must be built by developers flats.

Sustainable Housing Concept

The sustainable development paradigm that emphasizes the importance of understanding the meaning of the reciprocal relationship between the three main dimensions of life that continuously interact with each other, namely the social dimension, economic and environment is an integral part of the functional view of the complexity of linkages between natural systems, social systems and human in planning, organizing and implementing development. Settlements should be embodied in harmony with ecological functions, employment, service and transportation. Here reflected that the settlements should be able to meet the physical and non physical aspects of the occupants and can accommodate a growing dynamism in it. In the planning of sustainable housing project would meet the social, economic and environment so that development objectives to enhance human capital, i.e welfare, health, peace, be achieved. So to be considered for the construction of flats in urban areas towards sustainable housing is to consider economic factors, social, environmental concern, the welfare of residents so that the development that happened to be sustainable.

METHODOLOGY

Attention is focused on the Cinta Kasih rent apartment in Cengkareng because this project is the one identified as successful and sustainable. The study took place in Jakarta, and is of development research type. There are four latent variables in its structural models: one latent variable of management performance factor, and three latent variables linked to residents' perception during their occupancy of their units, their satisfaction with living in their units and their behavior after living in their units. For analyses, the Structural Equation Modeling (SEM) was used on SIMPLIS (SIMPLE LISREL) 8.5 for Windows computer application program.

Waste Disposal Facilities

Waste disposal facility residents were divided into two, namely the disposal of solid and liquid waste. As a means of disposal of solid waste, there are bins scattered around the Cinta Kasih Flats. There is a separation between organic and non organic waste in landfills instructions, 3 cans for organic waste and 3 cans for garbage is not organic. However, the observation shows that residents separate their garbage tidak in trash cans. This solid waste will be collected on each day on waste collection and waste transported by truck once a week.

It's just special to RT 9 there is a program for sorting plastic waste from household waste. The residents of each provides a sack of rice which was tied to railings in front of their house as a place to collect plastic waste. If the garbage is already full, it will be collected in special recycling centers RT 9 which is located in the rear stall the RT. The collection of plastic waste is then sold and subsequently money raised from sales of cash saved to RT. Results from the sale of plastic waste is used to finance the activities of these RT. As for liquid waste disposal facilities is centered on the main drainage system and septic tanks. There are 3 specialized workers who are working to clean up the drainage in the vicinity of the apartment's Love. In addition, there also are septic tank emptying on a regular basis by the administrator. In each unit there is no odor, but in the main drainage channel at times there is the odor if the septic tank is full enough occupied.

The organization of space in the housing unit.

In terms of room layout, the design space of Cinta Kasih flats designed by placing the living room, bedroom, and bathroom in the room adjacent to one another to be effective. While room service (kitchen and laundry room) are placed separately from the main room. So there is separation between the front room and back room. Closeness between the living room and bedroom to create the living room as the center of each housing unit. Size of living room space is also quite large as a gathering place for the whole family.

Ease of accessibility to housing units is by the provision of stairs on each house as a means of circulation. The stairs are equipped with steel safety (handrail) as high as 90cm from the base. The security comprises four steel pipe diagonal and vertical pole, a distance of 20cm diagonal iron and quite dangerous for toddlers. Only 1 meter wide staircase, quite sufficient for the circulation of occupants but not for the circulation of goods. From the 1st floor staircase to the 2nd floor there is a fairly high with the number of rungs 14. Then when she reached on the 2nd floor there is a place of rest and at the same entrance floors 2B and 2C with the size of 230cm x 113cm. Furthermore, there are 7 steps to access the floor of 2A and 2D, and so on.

Infrastructure Facilities

In terms of infrastructure Cinta Kasih flats have means quite a lot. Infrastructure available in the apartment of Love can be seen in Table 4.1 below:

Table 4.1. Equipment List

Infrastructure Facility	Location
Trash	24
Hidrant	9
Motorcycle Parking	17
Road Signs	9
Ball Field	1
Basketball / Futsal	2
Field Voley	2
Field Badminton	4
Citizens Hall	1
Postal Security	2
Playground Child	1
Pujasera	1
Kios	1
WWTP	1

Source: Damayanti, 2010

For solid waste disposal managers provide the trash. Place garbage at the Cinta Kasih flats spread at 24 locations, in 21 locations there are 6 trash cans with explanation 3 for 3 for organic waste and organic waste instead. The location of the trash is quite strategic because it was in every aisle or space between buildings. Trash can itself is made of blue plastic so easily recognizable and with large capacity so that it can accommodate garbage citizens. From the results of observation there was never any trash that is not accommodated (overload) by this trash. Cinta Kasih flats have recycling units, but that is not recyclable solid waste from residents rather than luxury housing. So this recycling unit as an absorber of labor who work there only because residents generally.

As for liquid waste disposal there is a large ditch on each block. Drainage area covered flats Cinta Kasih of the water system outside, this is because the flats Cinta Kasih is the lowest region in the region, so the inlet to the area of the apartment was closed, so it will not result in flooding. As for the outlets will be channeled to time in the Northwest area of the apartment (towers) after liquid waste water was processed at the Waste Water Treatment Point (WWTP). If it was raining heavily and the area flooded the apartment manager will suck up water with 4 of the pump. Results in-depth interviews stated that the pool will soon subside after 1 hour. This pump is provided to cope with the flooding due to rain. However, a shortage that obtained from the closing of all channels is only a puddle of waste water. Swimming is used to accommodate the waste water in the waste accumulation in Block A is not able to accommodate all waste water, resulting in some ditch in the block A6 and stagnant water is not flowing. Meanwhile the area this flats is a former swamp. So there are a number of mosquito-breeding problems. This is also because the area around the towers is very lush. Fortunately this does not cause disease, because there are activities Interpreter Monitor larva (*Jumantik*) initiated by the Chairman of RW and conducted by citizens every week, precisely on Friday morning. For fire hydrant is also scattered throughout the area especially for each alley or the space between buildings. Hydrant red colored and easily recognizable

Dimensions of Economic Environment

The majority of residents are poor, most are victims of eviction Kali Angke. Their livelihoods as laborers, drivers, builders and even unemployment. The ability of the economic life of the community in supporting and maintaining life for the fulfillment of basic needs. The indicators are:

1. Occupation

Type of work is the kind of activities / work that was involved and is the main source of income households. By the time they were moved from the banks of the river to the Flats Cinta Kasih many do not have a job (unemployment).

With its charitable mission Buddhist Tzu Chi Foundation help residents who do not have a job for hire at the recycling center and petting factory Tzu Chi, as a driver if they have the driving skill in companies Tzu Chi volunteers, as a security officer, environmental hygiene in Flats, Hospital and School, as teachers, as nurses and others.

2. Monthly income level

Family income is measured by the number of accumulated income of all family members, after converted to a month, so the unit is the rupiah per month (USD / month). The average monthly income of residents has ranged Rp 700,000, - to Rp 1.5000.000, - nett

3. The level of monthly expenditure.

Expenditure that is used to provide for the family for a month, such as meals, payment of electricity / telephone / water /, transportation, clothing, health and entertainment. Measurement of total household expenditures per month tend to be tailored to the level of family income in a single month.

4. The number of family dependents

Family size is the number of members who become dependents of a family or a number of family members. In Cinta Kasih Flats Cengkareng number of members in each unit in the first 4-6 family members. When the number of occupants exceeds the provisions they are advised to take 2 units.

Dimensions of the social environment

Background (religion of Islam, immigrants, have since relocated) between citizens Kapuk Muara and Teluk Gog allow them to mingle with ease and harmony still apply the traditional culture that used to be applied in their new location. Still retain the old values of community activities, in particular religious activities. Uniformity of housing units and furniture which have increased self-esteem become more confident in participating and contributing to the community.

Vertical life also create an environment that more closely, it all happened in the community with easily monitored (and judged) by others, such as open conflict (brawl) and alcohol addiction is part of the stereotype Angke area is reduced because the effect of changing residence.

The ability of social and cultural life of residents of settlements in support of sustainability and environmental sustainability, including:

1. Access to public services:

There is a social organization.

Social organizations such as associations of citizens, Rt / Rw, *Pengajian* weekly, monthly *Pengajian*, *Post yandu*, PKK for mothers

Education.

Cinta Kasih School Cengkareng provide education containers starting from kindergarten to vocational and coupled with the high school and serving the public and residents towers.

Health.

In Love Flat Cengkareng Special Surgery Hospital there that can handle all types of disease and serve the public or occupants of patients Flat.

Hospitals and Special Education Flat dwellers get a subsidy, as an example for residents towers get subsidized school fees for a maximum of two children per unit. They just pay ten thousand dollars per month for grade one to grade three elementary and three hundred thousand dollars for classes four to six, from school fees for the public who reached ninety thousand dollars.

Houses of Worship.

There *mushollah* towers used in the environment once a month as a monthly recitation activities, to teaching regular weekly fathers and mothers are usually carried out in the parking lot per RT

Green open space / field.

Used as an area of interaction between residents when there are activities of a mass celebration of separti etc. So the quality of intimacy residents formed when frequent social interaction in the underlying by the trust to solve various problems in the environment together

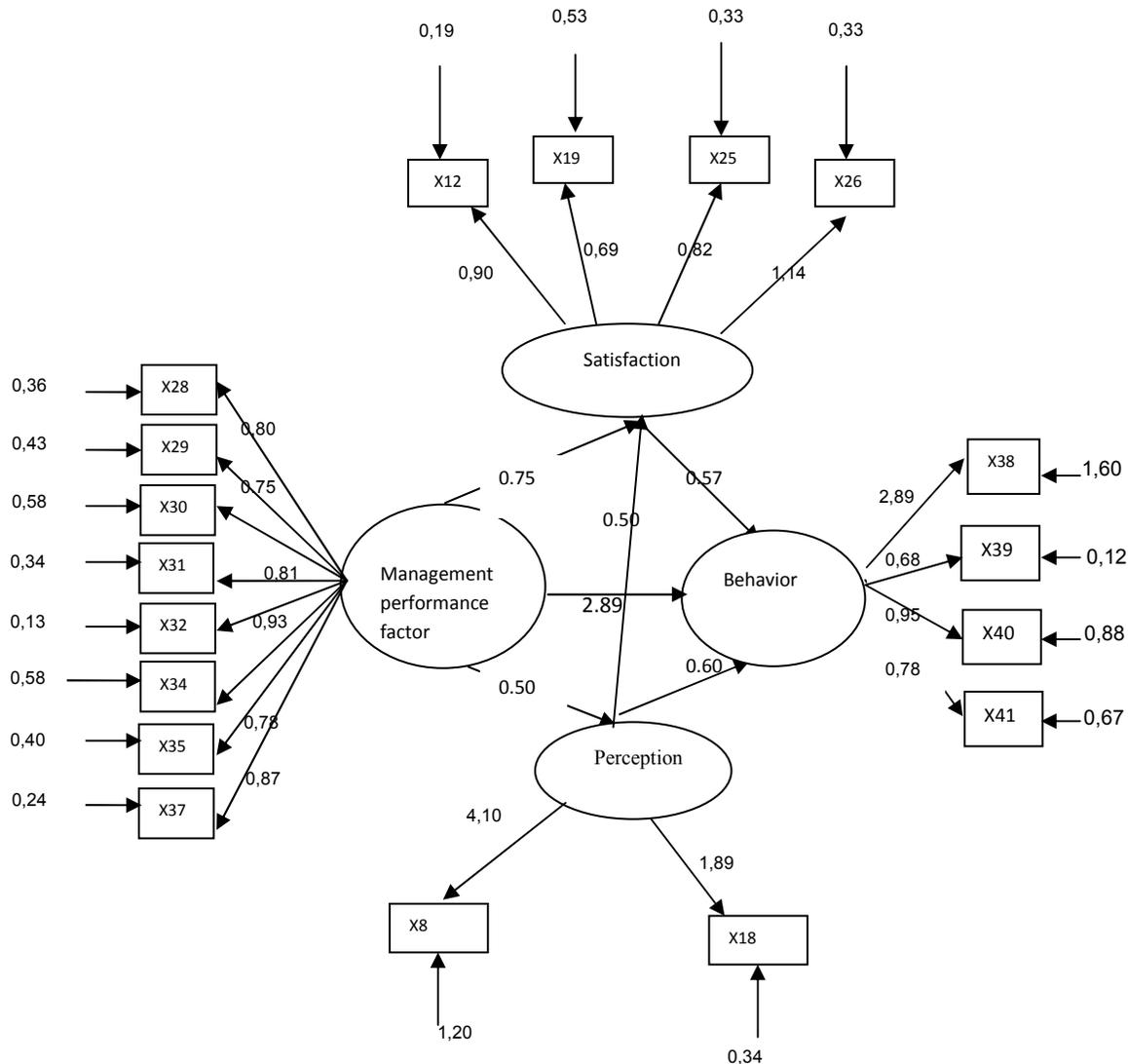
2. Security and comfort.

There are checkpoints which work 24 hours to maintain environmental security towers.

Explore constructs affecting contributing successful apartment project development.

Measurement testing of hypothetical models at a significance rate of 5% and a corresponding critical value of $\pm 1,96$ brings out the following outcomes:

Results of hypothetical testing of standardized loading factors with values of or more than 0.5 meeting the validity requirement for use as indicator variables for measurement modeling are shown in Figure 4.1.



Source: processed 2010 data
Figure 4.1: Results of measurement model for entire research 5

Figure 4.1 evaluates the assessment of fit of the measured models; with standardized loading factor values (λ) greater than 0.5, these variables have met the validity requirements. Results of the assessment of fit for measurement modeling of the hypothetical model are $p= 0,0094$; $RMR= 1,76$; $GFI = 0,95$; $AGFI = 0,94$; $CFI = 0,98$ and $RMSEA = 0,078$, meaning that the model meets the criteria with GFI of 95 percent or approaching 1, and therefore, the measurement model fits the research data.

Based on a structural model in figure 4.1 viewed from the direction of causal effects, exogenous latent variable factor performance manager also has a direct relationship to the behavior of endogenous variables. Exogenous latent variable factor performance manager also has an indirect relationship to the behavior of endogenous variables as the exogenous latent variable of satisfaction. Exogenous latent variable factor performance manager also has an indirect relationship to the behavior of endogenous variables as the exogenous latent variables of perception. exogenous latent variables of perception also has a direct relationship to the behavior of endogenous variables. Exogenous latent variable perceptions also have an indirect relationship to the behavior of endogenous variables as the exogenous latent variable of satisfaction.

Table 4.1: Results of reliability testing of measurement hypothetical models

Variable	Standardized Loading Factor	Errors	t – test	Reliability		Remark
				CR $\geq 0,70$	VE $\geq 0,50$	
Management performance factor				0,93	0,62	Reliability: good
X28 Flat infrastructure maintained by the management routine	0,80*	0,36	6,37*			Validity: good
X29 responsive to resident input	0,75*	0,43	6,04*			Validity: good
X30 always involves the residents to maintain the physical environment and social Flat	0,65*	0,58	2,87*			Validity: good
X31 always hold monthly meetings with residents	0,81*	0,34	4,16*			Validity: good
X32 provide input for residents to increase their quality of life.	0,93*	0,13	7,55*			Validity: good
X34 have a good relationship with residents	0,64*	0,58	6,05*			Validity: good
X35 always do the control / supervision of the physical condition, social and environmental Flat (the discipline).	0,78*	0,4	6,34*			Validity: good
X37 overall management of towers by the management of Cinta Kasih Flat Cengkareng was appropriate expectation	0,87*	0,24	5,28*			Validity: good
Satisfaction				0,90	0,70	Reliability: good
X12 the overall condition and physical environment	0,90*	0,19	8,26*			Validity: good
X19 the condition and social environment	0,69*	0,53	13,20*			Validity: good
X25 economic conditions	0,82*	0,33	11,86*			Validity: good
X26 overall view Flat management activities	1,14*	0,33	16,46*			Validity: good
Perception				0,96	0,50	Reliability: good
X8 Maintaining infrastructure is a task shared towers	4,10*	1,20	16,61*			Validity: good
X18 Environmental conditions that good occupancy	1,89*	0,34	11,86*			Validity: good
X36 Needs of everyday life can easily	1,89	0,02	2,87			Not valid
X33 improving the quality of life residents	0,99	0,37	4,16			Not valid
Behavior				0,86	0,64	Reliability: good
X38 participation of residents, such as participating in all activities undertaken by managers to improve the lives	2,89*	1,6	13,20*			Validity: good
X39 complaint while staying in Flat to the management	0,68*	0,12	11,86*			Validity: good
X40 discontent over living in Flat to the management	0,95*	0,88	7,55*			Validity: good
X41 Recommending and tells the Flat Cengkareng as a residence of good to anyone	0,78*	0,67	6,05*			Validity: good

Source: processed 2010 data

Based on the above calculations can be concluded that the validity of the variable is 0.9370 and CR = VE = 0.8165 and the MODEL HYPOTHESIS meets the specified requirements of the construct reliability > 0.7 and variance extracted > 0.50. In Table 4.2 shows that all indicators of the model produces estimates with t values greater than the standard error, it can be concluded that all indicator variables used is valid except on observed variables (x36) and (X33).

Theoretical model that consists of the manager's performance towers, perception, satisfaction and behavioral modifications after passing a few times to get fit (fit) then to obtain the appropriate model (fit) occurs only in the construct of managers, perceptions, satisfaction and behavior.

The theoretical model to explain that:

1. Performance management factor towers proved to be very directly influence the behavior of residents
2. Performance management factors towers proved to affect the residents' satisfaction resulting in changes in occupant behavior
3. Performance management factor towers proved to influence the perceptions of residents, affect occupant satisfaction and consequently changes the behavior of residents.
4. Performance management factors towers proved to influence the perceptions of residents, resulting in changes in occupant behavior

Conclusion The above implies that:

1. The better the manager's performance factor that is in the variable management by both foundations and the manager's Cinta Kasih Flats Cengkareng provide input for residents to increase their quality of life, the more positive the behavior of residents to participate in all activities undertaken by the manager as well as the foundation for the improvement of life.
2. The better the manager's performance factor that is in the variable management by both foundations and the manager's Cinta Kasih Flats Cengkareng provide input for residents to increase their quality of life, the higher the level of occupant satisfaction results in more positive behavior of residents to participate in all activities undertaken by the manager as well as the foundation for the improvement of life.
3. The better the manager's performance factor that is in the variable management by both foundations and the manager's Cinta Kasih Flats Cengkareng provide input for residents to increase their quality of life the better the perception of residents resulted in more positive behavior of residents to participate in all activities undertaken by the manager or foundation for the improvement of life.
4. The better the perception of residents on guard towers infrastructure is a common task, the higher their level of satisfaction of the condition of infrastructure facilities towers result in a more positive attitude to the participation of residents in all activities undertaken by the manager as well as the foundation for the improvement of life.

Formulate directions for the design of a model for an acceptable sustainable urban multistory housing development project for the promotion of standards of living of its resident.

Developing an urban sustainable high-rise housing project requires attention to available models and processes, and a model that proves to be acceptable under this research is in the construct covering management and residents of the housing, attempts by the management to change the perception of the residents, attempts of the management to change the behavior of the residents and the level of resident's satisfaction with the way the residential unit is managed.

Project management with clear vision and mission is clearly required for the supervision of the entire stages of the project – from planning to construction to day-to-day administration of the housing unit. The management has to be consistent and accountable in following the entire process of management of the unit to avoid making a mistake in setting a target. Development of a high-rise housing or apartment should be based on the concept of compact management to ensure promotion of varied and integrated activities, ease of access, and flexible and extensive framework of planning, and to also create a catalyst for social and cultural interactions.

Improving physical, social and economic performance of an apartment can make for a model for developing a sustainable high-rise housing development project in urban areas. This particular model should

take into account the aspects of: (1) planning for as well as actual relocation of residents; (2) housing structure and environments; and (3) users of the unit.

Results of the research show that the following processes prove to be effective:

First, at the stage of selecting who qualify as future residents of the unit, the management should apply the principles of ‘direct’, ‘prioritize’ and ‘respect for life’:

1. ‘Direct’ – the management directly interacts with beneficiaries.
2. ‘Prioritize’ – prioritizing is essential in deciding which ones are to be supported, to avoid unexpected outcomes such as empty units because the management targets the wrong beneficiary groups. Priority is to be given to people who really deserve to be supported and who are likely to change for the better.
3. ‘Respect for life’ – the management should not see beneficiaries as merely an object; they should care for their physical and psychological conditions as well.

Second, for the initial stage of the project development, the management should design a structure that is:

4. Green (preserving the environment);
5. Sustainable and durable;
6. Capable of keeping a balanced ecosystem;
7. Providing healthy living conditions.

In order to serve these purposes, a master plan for the whole physical construction stage is required.

Third, when it comes to the relocation of people, counseling assistance will be necessary, and the management should work with them for a smooth process and to avoid the impression that this is a forced relocation.

Fourth, the post-relocation stage plays an important part in the endeavor to change the perception and behavior of residents. When residents have their perception changed, they believe that living in a high-rise apartment fully equipped with infrastructures and facilities which they need can improve their life. The management should continue to support the residents, provide examples and give motivation. Controlling and monitoring physical, social and environmental conditions of the residence are to be regularly and continually carried out by the management.

CONCLUSIONS

1. After several modifications, it is found that a fit model is in the management, perception, satisfaction and behavior constructs. The assessment of fit for the overall structural model has satisfied the requirement. The model suggests that: (1) The higher the management’s performance factor, more positive behavior is shown by the residents; (2) The higher the management’s performance factor, the better the perception of the residents gets, and this leads to a higher level of satisfaction of the residents, and further results in positive resident behavior; (3) The higher the management’s performance factor, the higher the level of satisfaction of the residents, and consequently more positive behavior is shown by the residents; (4) The better the residents’ perception, the more positive behavior the residents shown by them.

2. In terms of model, results of the research suggest ones dealing with (1) proper management of high-rise housing and its residents, (2) changing perception of residents by the housing project management, (3) changing behavior of residents by the housing project management, and (4) satisfaction of residents with the management of their residence.

In terms of process, the research suggests the following processes: (1) initial stage of development; (2) relocation of beneficiaries up to post-relocation living; (3) further processes after relocation; and (4) counseling and assistance.

Development of a high-rise housing or apartment should be based on the concept of compact management to ensure change of perception and behavior of residents for improved quality of life.

ACKNOWLEDGEMENT

This work is supported in part by the University of Indonesia under the Competitive Research Grant (RUUI) 2010. The authors would like to thank Mr. Sugianto Kusuma and Mr. Hong Tjhin, members of the management of Indonesian Buddhist Tzu Chi Foundation, and a number of Tzu Chi volunteers who warmly gave both their moral and material support, and offered interesting discussions to enlighten on Buddhist Tzu Chi's exemplary models of love and compassion. Thank you to Prof. Mutsu Hsu of the Tzu Chi University in Hualien, Taiwan, who was so kind and willing to set aside time to correspond with me, and set up for me a meeting with the founder of the Buddhist Tzu Chi Foundation, Master Cheng Yen

REFERENCES

- Bintarto, R, (1986). *Urbanization and Issues*, Jakarta: Ghalia Indonesia.
- Blaang, C. D, (1986), *Housing and Settlement As Necessity*. Jakarta: Yayasan Obor Indonesia
- Budihardjo, E and Djoko S. (2005). *Sustainable Cities*, PT Aluni, Bandung.
- Ching, Yu-ing, (2009). *The Master of Love and Mercy: Cheng Yen*. Jing Si Publications Co., Ltd.. Taipei, Taiwan
- Da Ai TV. (2005). Kali Angke Project (A Research). Indonesia DAAI TV Drama team.
- Damayanti, S, (2001), *Perception and Behavior Architect Of Environmental Management (A Case Study of Jakarta)*, Master Thesis, S2 Program in Environmental Sciences - Graduate Program, University of Indonesia. Unpublished.
- Damayanti, S. (2011), *multistorey housing model for sustainable development (Study of Perception, Satisfaction and Behavior of Residents at Cinta Kasih Flats Cengkareng in DKI Jakarta)*. Dissertation, Environmental Science Graduate Program, University of Indonesia, Jakarta. Unpublished.
- Danandjaja, J. (2005). *Anthropology Psychology: Personality Individudan Kolektif*. Institute for Cultural Studies Indonesia. Jakarta.
- Dardak, D, (2005), Spatial planning and management, the Department of Public Works, Jakarta
- Darrundono, (2006), *The role of social capital in a village improvement project*, Dissertation, Environmental Science Graduate Program, University of Indonesia, Jakarta. Unpublished.
- Davis, M, (scholar), (2009). *Planet of Slums*, Verso Books. New York
- GUIDELINES FOR TECHNICAL MANAGEMENT OF FLAT.
- Housing Office of DKI Jakarta (2006). *Seminar on 'Government Policy on Housing Development Exciting'*, Jakarta
- INDONESIAN GOVERNMENT REGULATION NUMBER 4 OF 1988 ON FLAT
- Kanastari A, (2009), Simplified Flats Rent-Income Communities. Undergraduate Theses, S1 - Architecture Study Programme, ITB. Unpublished.

- Kusgiyanto. (2000). *Housing Community Development: A Case Study houses Bidaracina Flats East Jakarta*. Thesis. Sociology Study Program Management specificity Social embangunan. Graduate Program FISIP UI. Unpublished
- Kustiwan, I., (2009), *Shape and Sustainable Urban Development Area (Compaction Potential Study in Urban Area Bandung)*, Dissertation, Doctoral Program in Environmental Sciences - Graduate Program, University of Indonesia. Unpublished.
- Kuswartojo, T, (2005). "*Housing and Settlements in Indonesia: Efforts to make sustainable development of life*" Bandung: ITB Publishers,
- Law of the Republic Of Indonesia Number 16 of 1985 on Flat.
- Law of the Republic Of Indonesia Number 4 of 1992 Concerning Housing and Settlement
- Masjkuri, S U., (1992), *Simplified Analysis of Housing Demand in Second Level Region Municipality of Surabaya*, Airlangga University Research Institute. Unpublished
- Masyito, N. (2003). *Relationship with the Quality Housing Development Residents (Case Study Flats in Kelurahan 23 Ilir Palembang)*. Thesis. UI Graduate Program. Unpublished.
- Rapoport, A. (1997). *The nature and role of neighborhoods*. *Urban Design Studies* 3: 93-118
- Sariasih, (2003), *perception of satisfaction and attitudes of residents after living in an independent city. A study on township BSD*, Thesis, UI, Jakarta. Unpublished.
- Sarwono, S Wirawan (1992). *Environmental Psychology*. PT. Grasindo. Jakarta.
- Yen, Cheng, (2008). *Ten Thousand Lotus Blossoms of the Heart. Dharma Master ChengYen and the Tzu Chi World*. Tzu Chi Humanitarian Center. Taipei, Taiwan.

Journal

- Rapoport, Amos. (1987). The nature and role of neighborhoods. *Urban Design Studies* 3: 93-118.

Internet, print media, electronic media

- Da Ai TV. (1995). *Kali Angke Project (A Study)*. TV Drama team DAAI Indonesia.
<http://library.usu.ac.id/download/ft/WahyuniZahra.html>: Home Sustainable A Holistic Approach. accessed 08/08/2009.