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Effect of Residents' Participation in Management Works on Satisfaction in Multi-storey Housing

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Abstract

Multi-storey housing projects are a new orientation in Gaza, Palestine resulting from the increase of residents and limitation and high prices of lands. Residents' participation is essential for implementing maintenance works to prolong the housing structures' life and to delay the need for new structure redevelopment. Five levels of participation are used in this study begin with a leader who defines objectives and tasks and ends with a nonparticipant resident. This paper aims to investigate the effect of residents' participation in management and maintenance works on residents' satisfaction in new multi-storey housing projects in Gaza, Palestine. The data were obtained from random samples of an 80-resident pilot study. The result of the analysis shows a significant relation between the level of the residents' participation and their satisfaction. Accordingly, recommendations for responsible authorities are to monitor and follow up on the ability of residents to acclimatize.

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1. Introduction

Investment in the construction of multi-storey building increased and became predominant after the withdrawal of Israeli forces from the Gaza strip in 1994 (Alsousi, 2005; Ziara, Rustom, Ea-Bayya, & Ahmed, 1997). Asfour (2011) argued that high-rise buildings became common after 1994 to cope with the increasing need for houses. These buildings serve a large number of households who cannot afford to buy lands to build over. Kim, Yang, Yeo, & Kim (2005) assumed that residential building's function and quality should be well because occupants spend much of their time inside it. In the Gaza Strip, as in other countries, single owned detached housing was dominant in the past when the household has almost complete control of everything in his dwelling from the design stage to occupation stage over the years. As a result of increasing land prices particularly in urban areas, Tawil, Che-Ani, Ramly, Daud, & Abdullah (2011) stated that the building of high-rise residential complexes became a more economically practical solution. The appearance of such housing type with multi-owners decreases the ability and the right of every owner to have his own control over his dwelling as in previous single owned detached house. Accordingly, some problems occurred when many households share making a decision in a common issue. Al-

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Zubedi, Nor'Aini, & Nazirah (2010) demonstrated that multi-storey and multi-ownership housing is exposed to heavy usage, natural wear and tear, and it needs maintenance. Tawil, et al. (2011) pointed to the appearance of residents' participation in managing and maintaining the property in multi-storey houses in contrast with single-owner dwellings. Residents' participation is an ongoing process and residents must be aware about their rights, roles, and responsibilities Leung (2005). Leung added that resident participation consumes time and money, but it ensures customer satisfaction with the product.

Since there is no study about the effect of residents' participation in management and maintenance works on residents' satisfaction in new multi-storey housing projects in Gaza, this study tries to fill this gap. The Gaza Strip is located in the western edge of Asia, close to the north eastern edge of Africa (the Sinai desert of Egypt). It is a small part of Palestine with an area of about 365km². The housing projects which were implemented after 1994 can be divided into three groups based on the body who implemented them; multi-storey housing projects managed by the Ministry of Public Work and Housing, the Palestinian housing council, and the international organization like; The United Nations Relief and Works Agency (AUNRWA) housing projects which address the refugees' households. The Ministry of Work and Social Affairs defines that the missions of the committee of administration include; the maintenance works of the building lifts, pumps, electric board, water supply, lighting for shared spaces, cleanness, collecting services monthly payments from residents, providing a salary for the guard, buying any materials or equipments needed for cleaning or maintenance.

The purpose of this paper is to investigate the effect of residents' participation, in two of the government multi-storey housing projects, in management and maintenance works on residents' satisfaction. It will be a reference for those who are concerned about housing sector especially in the field of residents' satisfaction. Further, policy makers can consider this type of evaluation in the future as a strategy to achieve the best for satisfying residents' needs and aspirations. This paper is a part of a research that aims to assess the effect of residents' participation on their satisfaction. The study will first review theories and concepts of residential participation in management and maintenance to form the framework of the study; followed by methodology, results and discussion; and finished by recommendations for improving such building types.

2. Theoretical framework

Fredrik (1986) defined participation as a general concept which covers different forms of decision making by a number of involved parties. It can be active or passive depending on the level of residents' involvements. The use of common parts needs coordination and cooperation among residents, and the maintenance of them needs the agreement of all or majority of the other residents to be carried out (Daniel Chi-wing Ho, Yung Yau, Alex King-chung Cheung, Kwong-wing Chau, & Leung, 2006). Yung Yau (2011a) assured the importance of homeowner participation for monitoring and maintaining the quality of housing management and maintenance in a multi-owner housing. He added that every owner has a private right to use their own units, but he has the responsibility for managing the shared facilities in a building and common areas such as entrance lobbies, access corridors, staircases, lifts, lighting, service ducts and water pumps. This is the same with the multi-storey housing project in Gaza where every building has multi-owners who should share the responsibility. Wandersman (1981) divided residents into two types; people who care about, like, and need participation and others who consider participation as an extra load and feel happy not to participate. He divided the first group into people who take the initiative for participation and people who do not mind to participate if they were given the opportunity to do so. (Leung 2005; Yung Yau, 2011a) argued that homeowners will participate only if they are dissatisfied with housing management outcomes.

Arnstein (July 1969) defined eight levels in the ladder of citizen participation illustrating examples from the federal social programs. The bottom rungs of the ladder are manipulation and therapy which he described as levels of nonparticipation, followed by informing, consultation and placation, where citizens begin to have some degree of influence; and ending with partnership, delegated and citizen control, where people are simply demanding a degree of power or control, guarantees that citizen can govern a program or an institution. To measure homeowners' willingness to participate, Yung Yau (2011a) used five different activities of housing management;

attending resident association meetings, expressing views at resident association meetings, organizing resident activities for the resident association, making comments and suggestions to improve the management standard, and participating in the activities organized by the resident association or property management agent. Yau assumed that non-participation from residents is a reasonable choice if they received benefits less valuable than their cost of making the effort and he proposed the concept of rewards and punishments to motivate homeowners to participate in housing management affairs. Some of the previous activities are used as levels of participation by (Wandersman, 1981). Wandersman divided the levels of individual participation in community organization into more simple division from four levels as follows: a leader defines objectives, tasks, and problems to be addressed; a worker attends committees and works actively; a member attends meetings, comments, and votes; and the lowest level was nonparticipation resident.

In the case study of this paper Wandersman's levels are adapted as being more related to residential buildings' administration with more detail in the third level. The third level was divided into three levels in the questionnaire of this study as follows; a member attends meetings, comments, and votes, a member attends meetings, and votes, a member attends meetings to listen only. As such, the levels of participation used are six. Yung Yau (2011,c) defined many activities that a resident can share to participate in management such as; being a committee member of homeowners' association, attending association meetings, giving suggestions, lodging complaints to the associations and joining the demonstrations to protect owners' rights. The first three items were considered as levels of participation in Wandersman's study.

Yang Yau (2009) defined housing maintenance as upkeep and repair of the building fabrics such as reinforced concrete structures and windows, and services such as water supply systems and elevators to make the dwellings functional. He added that proper maintenance is essential to protect people's health-being, prolong the housing structures' life, and delay the need for new structure redevelopment. Yung Yau & Ho (2008) stated that there is a need for some organization for building management to manage the shared parts of a building. Yung Yau (2011a) defined entrance lobbies, access corridors, staircases, lifts, lighting, service ducts and water pumps as shared parts co-owned by all owners of multi-owner housing.

Lujanen (2010) stated that collecting money from residents for repairs is not an easy task and there are no measures to enforce them to pay. Different problems resulted from lack of proper management and maintenance were reported in many studies: Tiun (2009) reported unit owners that did not pay the service charge, lack of detailed legislation pertaining to the maintenance and management of building and lifts; Tawil, et al. (2011) defined water seepage in wet areas from one floor to another below it as one of the most common disputes in residential developments; Djaafar defined problems such as; vandalism, rubbish thrown from upper floors, large areas of space between the blocks have no real usefulness that have been turned into wasteland, problems with stairs cases and lifts, responding from residents to emergency repairs, involving residents in management meetings, use of public spaces for private use. Daara & Zerouala (2007) added slow and inefficient maintenance as a problem; Dawoud (2003) reported problem such as; breakdown in lifts, lack of guards and lack of meeting room for negotiating building and residents issues. (Al-Zubedi, et al., 2010; Tiun, 2009) defined service charge collection and arrears as major problems in multi-storey residential buildings.

The aforementioned studies defined levels of participation, some problems related to lack of participation but do not correlate this with residents' satisfaction. This study improves a framework that investigates residents' participation effect on residents' satisfaction in multi-storey housing. To achieve the purpose of the study the researcher chose two housing projects to administer the questionnaire.

3. Methodology

A questionnaire derived from literature review and observation from the area of study was administered in this study to achieve its objectives. This study investigated resident's participation as independent variable in two of housing projects in Gaza; Tal Alhawa housing project with about 1960 apartments and the targeted group is the limited income groups from employees in different organizations and associations in the society, and Sheikh Zayed housing project with about 736 apartments implemented until now. It targets the households whose houses were demolished by the Israeli air force or households with social cases from large size poor families or families of martyrs or disabled injured persons from the Israeli aggression. The respondent of the questionnaire should be the head of the family either male or female. He or she can be owner or renter of the apartment and has resided for at least one year.

Based on an 80-respondent pilot study on the previously mentioned housing project, the questionnaire was administered randomly during December 2011 and January 2012. The level of participation was measured in a five point Likert scale ranging from "1" for strongly disagree to "5" for strongly agree, and the level of satisfaction was measured in the same scale ranging from "1" for very unsatisfied to "5" for very satisfied. Data was analyzed using descriptive statistics, cross tabulation and bivariate correlation.

4. Results and Discussion

This study investigates the levels of residents' participation and satisfaction in management and maintenance works. In addition, it assesses the effect of residents' participation in management and maintenance works on their satisfaction about the same works. The results are analyzed and discussed in the following.

4.1. Respondents' Background Data

The percentage of the owner in Tal Alhawa project is 98% and in Sheikh Zaid project is 85%. The percentage of ownership is high as the projects were mainly for families in need of owning apartment to live in. The average area of apartment in Tal Alhawa project is 170 m² and in Sheikh Zaid project is 110 m²; the average age of respondents' is 49 years for the first project and 43 years for the second one. The difference in level of education is clear; while about 54% of respondents in the first project have a bachelor degree and 26% are postgraduate, 85% of the respondents in the second project have less than diploma degree; the average of duration of residence is seven years in the first project and 5.6 in the second one. Both projects are relatively new. The first one is a multi-storey building with about six to ten storeys, each has three or four apartments per floor in the first project, and in the second project each building has five storeys with two apartments per floor except one building with 12 storeys. The level of participation in management and maintenance is measured using twelve items: I share or have shared as a leader; I attend committees meetings and work actively; I attend meetings, comment, and vote; I attend meetings, and vote; I attend meetings to listen only; I share with oral or written suggestions to the board of directors; I attend meetings only when there's a problem or complaint; I do not attend meetings; I lodge complaints to the board of directors; I pay for building maintenance; I pay for building for service charge as scheduled; and my sharing increase in case of a problem related to me. The level of residents' satisfaction in management and maintenance is measured using eleven items: my attendance of general assembly meetings; sharing my opinion during general assembly; residents' attendance of general assembly meetings; residents' opinion sharing during general assembly; the number of times of general assembly is proper; cleanliness of shared spaces; respond from residents to emergency repairs; the lift maintenance; the ability of board of directors to solve problems; maintenance work in my building in general; and planting from residents in the building's surrounding.

4.2. Residents' Level of Participation in Management and Maintenance Works

The average of residents' participation in management and maintenance works in the first project equals 4.27 with 0.46 standard of deviation, and it is higher than the average of residents' participation in the second project which equals 3.96 with 0.79 standard of deviation. This is related to the differences in the characteristics of the residents. In the first project, the residents in the same building are mostly from the same association, and they have better economic situation and higher level of education than residents in the second project, as previously mentioned in residents' background analysis. The level of participation is high in general which differs from Yung Yau (2011b) who found that residents will participate only if they were dissatisfied with managements works.

4.3. Residents' Satisfaction about Management and Maintenance Works

The average of residents' satisfaction about management and maintenance works in the first project equals 3.74 with 0.44 standard of deviation. It is higher than the average of residents' participation in the second project which equals 3.5 with 0.53 standard of deviation. The level of residents' satisfaction in both projects is less than the average of residents' participation. This can reflect that residents' feeling of giving is higher than receiving benefits. However, it is clear that each resident evaluates his role better than other residents' role. For example, the items of "my attendance of general assembly meetings", "my sharing in opinion during general assembly" have mean scores of 4.1, 4.0 respectively, and the items of "residents attendance of general assembly meetings", "residents' sharing in opinion during general assembly" and "responding from residents to emergency repairs" have mean scores of 3.45, 3.8, 3.6 respectively. Residents' respondent to emergency repairs and their sharing in management meeting have mean scores of satisfaction from residents 3.6 and 3.4 respectively which is considered between neutral and good level. This is in close proximity to Djaafar argument that these two items were problematic.

4.4. Correlation between Residents' Level of Participation and their Satisfaction

Correlation between residents' level of participation in management and maintenance works and their level of satisfaction about same works is analyzed using bivariate correlation. The Spearman correlation coefficient is 0.572 and it is significant at the 0.01 level. This correlation is positive and medium. It reflects indication to the importance of residents' participation in management and maintenance works in multi-storey building as this will contribute to increase their satisfaction about the building. This is in parallel with Yung Yau (2011b) who found that residents who participate in management's works evaluated the building management's works higher. Gender has no significant effect on residents' participation level in this study which support Yung Yau (2011b) findings, while better educated residents and residents with longer duration of residence ,which were significant in Yung Yau findings, are not significant in this study.

Table 1. Correlation between residents' level of participation in management and maintenance works and their level of satisfaction

Correlations			total of participation	total of satisfaction
Spearman's rho	total of participation	Correlation Coefficient	1.000	.572**
		Sig. (1-tailed)	.80	.80
		N		
	total of satisfaction	Correlation Coefficient	.572**	1.000
		Sig. (1-tailed)	.000	.
		N	80	80

** . Correlation is significant at the 0.01 level (1-tailed).

5. Conclusion

The residents in both projects were generally involved in participating in the management and maintenance works with higher mean score for the Tal Alhawa housing project. The residents in the first project pay to get the apartment for many years while residents in the second project take the apartment as compensation from the government. It can be said that when a resident pays for his house, he cares more about maintaining the house and accordingly, he will often be more satisfied about the management and maintenance of the house. The average level of residents' satisfaction in both projects is less than the average of residents' participation which reflects that residents have higher feeling of giving than getting benefits. The mean score of satisfaction level in the first project is higher than the mean score of satisfaction level in the second project. The results also reveal significant correlation between residents' participation and their satisfaction which support Leung demonstration that residents' participation ensured customer satisfaction with the building.

The findings of this study differ with Dawoud (2003) findings who reported that breakdown in lifts is considered as a problem, but in this study the level of residents' satisfaction about maintenance of lifts is 4.1 which reflects a fine situation. Collecting money from residents for maintenance work is considered as a difficult task by Lujanen (2010), while in this study, it reaches an acceptable level in the first project with means of scores 4.5 and a standard of deviation 0.65, while in the second project it is 3.7 with a standard of deviation 0.65. This can be related to poor economic situation in the second project. However, the studied projects are still new and the need for maintenance work is still limited. There is a need to repeat such a study many years later when it is expected to need more maintenance works.

In order to get better level of residents' participation to achieve more residents' satisfaction, the responsible authorities should not only provide new type of housing project with multi-storey and multi-families, but they should monitor and follow up the ability of residents to acclimatize themselves and manage the common spaces and services effectively.

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