

Residents' Satisfaction at Gated Communities In Egypt

Case Study: New Cairo city in Greater Cairo Region (GCR)

Dr: Eslam Nazmy Soliman Fahmi El Sayed

Abstract— In the late seventies, the Egyptian government decided to establish new urban communities on the edge of Great Cairo Region (GCR) to provide different types of housing, services, facilities, job opportunities and facing escalating population growth. Gated communities spread vastly in the Egyptian real estate market especially among the rich people due to privacy, prestige, quality of life, segregation, separation from their community. Soon their demands became a target model for less economic classes as well.

This study classified the gated communities' in Egypt into four types (Luxurious, moderate, low high and post enclosed gated communities) based on residents' economic status. An assessment was done to measure residents' satisfaction for the features of each type. Therefore, our case study selected six gated communities symbolizing the four categories' of research classification. All selected gated communities are located within New Cairo city as one of the most important new cities on the eastern edge of Great Cairo Region (GCR).

This study was concluded by determining the strengths and weakness of each gated community; and defined the types that are suitable for the Egyptian society. It raised some further research topics that need to be studied.

Index Terms—Facilities and amenities, Features of gated communities, Gated Communities, Great Cairo Region (GCR), Housing types, Housing pattern, security factors.

1 INTRODUCTION

In late seventies and early eighties, the Egyptian government started to look for new urban developments in the out skirts of big cities such as Cairo in Greater Cairo Region (GCR). The housing communities were the main spine of the new urban developments, in which the private sector played a major role in these developments; as a new trend for Privatization. Such communities have different types of housing and facilities to be attract investments, to create new jobs and to decrease the demand for capital. Among these housing types are "gated communities (GCs)".

This paper assess various types of GCs within New Cairo City, one of most important cities on the edge of (GCR), as key component in new urban communities. These GCs took different shapes, configuration and layout; some were planned by government while others were forced by residents to segregate themselves from the rest of society.

2 PROBLEM AND AIMS

The main problem of this research paper is to uncover the main reasons for the different types of increasing GCs. Therefore, the research raises some inquires such as:

- What are the types of GCs in new cities at the edge of (GCR)?
- Do these types of GCs and its features satisfy what the residents aspire for, when they decide to live behind gates and fences?

- What is the appropriate form of GC which fits Egyptians in current political and economic circumstances without affecting the general context of the new cities?
- Are GCs in (GCR) considered a good investment to residents with an appropriate economic revenues?

This research aims to assess the current types of GCs in one of the new cities at the edge of New Cairo Cities (GCR), and how GCs fulfill the needs and requirements of its residents.

3 RESEARCH METHODOLOGY

This research aims to assess the current types of GCs in one of the new cities at the edge of (GCR), and how GCs fulfill the needs and requirements of its residents. The research methodology is based on:

Inductive approach:

Through a theoretical study for the history of GCs and the reasons behind the escalation of this urban phenomenon in the past two decades. Figuring GCs features; especially those attracting residents and investors will be also determined. Studying various types of GCs and how to shape its features to meet the demands of residents willing to invest while protecting their property within gates.

Deductive and analytical approach:

Is done through a case study for various types of GCs in New Cairo city in order to assess residents' needs fulfillment, in order to find out the appropriate GC that suits the residents' needs and requirements. The information gathering methods are: Observation, by collecting information about selected types of GCs such as urban pattern, housing pattern, elements of landscape, number of units, ...etc. along with site visits and data verification. Interviews and questionnaires, to local residents living within the selected GCs in order to assess its features. Each questionnaire was conducted on 30

• DR. Eslam Nzmey Soliman Fahmy Elsayed, PH.D Of Architecture, Lecturer at Architecture Department, Shoubra Faculty of Engineering, Benha University, Cairo, EGYPT, PH-01005069401.
E-mail: amreslam@yahoo.com
ISLAM.ALSAYED@feng.bu.edu.eg

residents in every selected GC, except El Rehab gated community; the questionnaire was conducted on 60 residents due to its vast area (reaching up to 10 times the area of any other selected GCs).

4 THEORETICAL FRAMEWORK FOR THE STUDY

In this part, the definition of GC is examined from different viewpoints, as well as the factors that attract people to live and invest in it. This research is also conducted to recognize the factors that affect the GCs' and its features.

4.1 The definition of Gated Community

Gated community is a walled residential area with a constrained access where public spaces are generally privatized [1]. Moving to Landman & Schonteich (2001), GCs are a generic term that includes enclosed neighborhoods that have controlled access through gates which provide their enclosed residents with a range of non-residential amenities [2]. Or it is a housing development on private roads closed to general traffic and it may be surrounded by fences, walls, or other natural barriers [3].

According to Blakely & Snyder (1997), GCs are systems of walls and class division are deeply ingrained in historic Europe as a mean of wealthy people protecting themselves from the local population [1]. Moving to Landman (2003), GCs are the dream of suburban which encourages the elite to stay and invest [4].

4.2 Gated community in history

Private communities' ideas are not new in urban history, cities from ancient times through the middle ages often featured walls for protection from enemies. In spite of the walled towns reflected the need for protection from attack but also a desire for enhanced social control [5]. After several centuries in western cities, enclosed communities re-emerge as a form for new development. In the late 20th century, the energy crisis of 1970s put an end to many nations welfare era. By the 1980s, governments began reducing regulation as neoliberalism grew ascendant [6], [7]. An increasing fear and angst of crime participated to fear of a city and a withdrawal from public space to private and GC in several countries [8], [9]. Recently, governments plan to cut down expenditure by encouraging the private sector to invest in urban developments, therefore, GCs began appearing in many countries [10].

4.3 The phenomenon of gated community

The pattern of gating within countries, clearly reflects local factors. For instance, in England gating is happening primarily around London and in the southeast [11]. In the USA it hits the south and the west [1], and in Canada is largely a west coast issue [3]. In poor countries, understanding the gating patterns require considerable knowledge of the political, social and economic factors that relate to local conditions. In some other poor countries, GCs offer a strategy for organizing services, where cities can't provide it [12]. Therefore, GCs have new form of self-governing where residents exercise democratic choice on their decisions [13]. Often GCs reflect a range of socio-economic

circumstance and cultural condition [14]. But in the poor countries, GCs widen the gap between different social groups, even though with adjacent gated and un-gated areas.

The Egyptian community experienced this phenomenon in the late seventies. And along with the development plans of (GCR), this phenomenon started to spread to include residents from various economic status. GCs have a significant effect towards increasing the added value of properties especially in new cities and all over Cairo as well. GCs meant the segregation of rich and wealthy from the rest of community; and expanded to include many housing types.

4.4 The reasons for escalating Gated Communities

There are many reasons of escalating numbers GCs; *First:* due to the ascendance of neoliberalism, a political and economic philosophy that advocates entrepreneurial freedom and private property rights [15]. *Second:* extreme power imbalances and economic inequality frequently contribute to crime or fear of violence, as may be the case in places like Egypt [16], so an insecure context may result from the failure or inability of the country to provide adequate security. Therefore, in the context of the state's inability or unwillingness to guarantee security, residents' decision to turn to GCs make some strategy to protect themselves, ex, El Amn Elaam gated community, New Cairo, Egypt. *Third:* sometimes country may prove too weak or pre-occupied with other responsibilities to ensure security in residential neighborhoods [3]. *Fourth:* many countries wish to let investment and market processes operate unrestricted. *Fifth:* in some cases social groups that may be especially concerned about social control and separation from outsiders use enclosure to protect cultural identity, even so in a small GCs with only a handful of homes or may large one.

4.5 Gated communities attracting factors

Blakely and Snyder (1997) provided one of the most thorough investigations of GCs available, and presented the most frequently discussed typology of the phenomenon [1]. These classification based on examination of four factors namely privatization, stability, exclusive, and sense of community, and then distinguished three general types of GCs in US:

- **Life Style** :Leisure activities, recreational facilities, identify security, amenities, share life style with others, and security may be secondary to the amenities offered in the community. The walls and gates restrict and limit vandalism [14], [17].
- **Prestige**: Symbol of wealth and status for image, don't often include common amenities or facilities, more privacy needed, landscape and quality of security. Therefore, the gates increase value of property and return to investors and residents [18], [19].
- **Security-zone**: Close off public streets, more and strong barriers, limit traffic, and maintain property values.

Each type has a lot of factors make residents willing to purchase a property in it, these factors can be summarized as follows [1],[3].

- **Security and safety**: Security and safety: the residents of GCs believe that enclosure enhance safety. Fear of crime

leads the residents of public housing to accept enclosure of their communities; fear of rising violence encourages residents to fence their suburbs and hire armed guards to patrol the streets or use technology for safety and security such as CCTV's and automated doors [4].

- **Social control:** GCs may include same residents' behavior, social homogeneity and lock a defined group inside. The walls simplify surveillance and signify social distance and control [20].
- **Privacy:** GC provides a way for residents to manage their interaction with others, especially in an Arab society where privacy is a very essential issue, the need of privacy may even expand to surround the property with extra fencing in spite the existence of gates and walls surrounding the community itself.
- **Status (prestige):** Walls have also been built for personal aggrandizement [21], in many regions enclosure affects property values and reinforces the social prestige. So it's only natural that the wealthy people always pursue excellence and prestige. However it must be taken into consideration that globalization and interaction between western and Arab society has posted individual pride among ordinary people and it no longer became a privilege for the rich.
- **Services, facilities and amenities:** gates allow residents to manage access, and prevent outsiders from using facilities [14]. Now a days, we can find services and amenities of GCs being shared by outsiders and not exclusive to residents whether with residents consent or against their desire.
- **Sense of community:** Residents considers walls and gates as their own miniature boundaries, for which they belong, love and prefer.
- **Clean air, water quality and health environment:** GCs as a private area should deliver services in such a way as to make it affordable to all residents regardless of income, age, or ethnic identity. Investors provide residents better quality of life, less crowdedness, less pollution and better built environment, therefore, the GCs are ideally located at the suburbs and city edges.
- **Protecting property value:** pursuing the best investment is a very important motive for both residents and GCs' owners. While residents seek property preserving and high resale value, owners seek increase profitability which GCs can easily offer due to its added value.

For each of factors, there are a group of features that are formed to achieve the resident's desires and motive to select living in that gated community, these features may include but not limited to, Table [1]:

- **Security features:** by using different building materials to build the walls and gates, the degree of enclosure differ as well. Higher and more solid walls provide a high degree of enclosure. In many cases natural feature such as water, ravines, and forest function as boundaries to enclaves, these prevent access for nonresidents and also regulate the degree of difficulty of access GCs [14]. Greenberg and Rohe (1984) demonstrated that

communities with well-defined enclosure and less access networks had lower crime rates than did neighborhoods with an open street system [21]. Modern day technology plays an important role in securing GCs, the guards were replace by automated doors, CCTV's and access codes. The degree of enclosure to a certain GCs reflects the level of privacy and security it provides, it might also be seen as an indicators for the economic and social status of the residents. In Arab societies, the residents usually secure their properties with various types of walls and gates even though the community is surrounded with gates and walls. As a result of this, extra precautions residents find themselves living behind double walls.

- **Gates shape and design:** The special design of gates and entrance has a great role in achieving different factors, some of them achieves status factors while other achieve safety and security.
- **Function of walls and gates:** The function of walls and gates differ from one GC to another. Some walls are used to limit the use of amenities to the residents while others are used to protect property values and achieve visual separation between properties. Privacy and class segregation (an essential demands in Arab communities) are also another goal accomplished by using walls and gates [23].
- **Activities, facilities and amenities:** Blakely and Snyder

TABLE I
THE RELATIONSHIP BETWEEN THE FACTORS AND EACH OF ITS FEATURES. SOURCE: BY RESEARCHER

Gated communities attracting factors	Main features to achieve factors													
	(A) Security features	(B) Gates shape and design	(C) Function of walls and gates	(D) Services, facilities and amenities	(E) Urban design features	(F) Elements of landscape	(G) Housing types	(H) Housing pattern	(I) Type of residents' economic status	(J) Size	(K) Traffic limit	(L) Location	(M) Purchasing price	(N) Resale price
Security and safety														
Social control														
Privacy														
Status (prestige)														
Activities, facilities and amenities														
Sense of community														
Clean air, water quality and healthy environment														
Protecting property value														

identify three key sets of amenities and facilities associated with retirement, golf, leisure, and suburban new town GCs. The availability of activities and amenities achieve within the enclave may affect the degree of interaction with world outside, and so implication for social integration and exchange [3]. In some third world cities, enclaves may provide many services and activities not available from public authorities [17]. So, greater activities and services within enclave may reflect social differences between the GCs services in and outside society. But in fact in the highly income residents GCs, they often find the wall may limit social mixing between the same residents classes.

- **Urban design features:** features about how natural (topography, vegetation) and built elements (buildings, roads,....etc.) in a particular space will relate to one another. Same as urban design in gated community which is defined as a relationship between residential buildings and space around it.
- **Elements of Landscape:** One of the key factor for a successful GCs is the amount of care and attention put to landscape and creating visual attractions. Landscape is one of the most important marketing tools that investors (GC. Owners) use to promote their product and convince potential customers to buy properties in the gated community.
- **Housing types:** Properties within a GCs do vary from separate villas, semi or fully attached units to apartment buildings. People seeking luxury and distinctive life style will go for a more independent gated community with a luxuries type of properties (large separate villas) along with its accompanying features such as more privacy and more security, while people with less financial capabilities will choose a more economic GC with a different housing types.
- **Housing pattern:** It includes how to assemble housing units with each other and the range of possibilities of creating open spaces or parking area, which in turn enhances certain factors such as the sense of community.
- **Type of residents' economic status:** Blakely and Snyder acknowledge the significance of segregation by class, age, and race in US GCs. Residents who move into walls by choice are typically economically privileged, sometimes ethnically or age segregated [22], but in other countries we may find segregation by ethnicity, religion or ideology. In Egypt it is not always necessary that wealth and social status go hand in hand, Wealthy people do not necessarily enjoy a high level of social status, so financial capability is the only criteria that residents can be separated according to [23].
- **Size:** The size of gated clearly affects social functions and characteristics. Some enclave are small, only a few houses; these tend to have few common amenities other than the road and wall. Others may have hundreds of homes, with shared activities such a club or swimming pool. A few GCs are size of towns, these size effect on the kinds of amenities in the settlement

and residents interact but low level of security provided.

- **Traffic limit:** Is it limited to the residents or can penetrate the gated community from non-residents? And this reflects the extent of the use of services, facilities and amenities, or use the GCs' roads to shorten or to conduct a traffic facilities.
- **Location:** Location is tied to other variables that drive gating, such fear of crime and rates of crime vary. Extreme poverty, violence and Terrorism occur more commonly in some parts of the world than the others, thus escalating those with means to look for residential solutions to the threats they face [3]. Accordingly the gated enclaves are appearing both in rich or poor countries, so the pattern of gating reflects local factors as political or economic status.
- **Purchasing price:** A property within a gated community has a totally different value and price than a similar one outside a gated community. This is because the price of a property inside a gated community will include its share features, amenities and running cost of facilities, accordingly the resale value of a gated community property will be relative and proportionate to its initial value [24]. As a result investment in the real estate market is one of the most profitable investments in Egypt generally and in New Cairo GCs particularly.
- **Resale values:** It is a key features of a GC especially for people seeking to buy property as an investment, so a gated community to withhold its property value.

5 APPLIED RESEARCH

Cairo is one of the biggest cities in the world with a population exceeding 18 million, it's the third biggest city in the Islamic world just after Jakarta and Great Istanbul. Its boundaries include Cairo Governorate, Giza Governorate and part of Qalibya Governorate (shoubra El Khima).

GCs are found in new cities located east and west of Cairo, they form an extension of Cairo city towards uninhabited areas (desert areas). The GCR's satellite cities were originally envisioned by the government as means of providing new housing communities and of reducing the capital's population density (mainly in New Cairo, The 6th of October and Sheikh Zayed new communities)[25].

The field study will analyze the GCs in one of the biggest cities located 10 miles east of Cairo (New Cairo City), Fig.1.

Therefore, the applied research relied upon analyzing many pattern of GCs in New Cairo city as one of the most important regions with rapid development rate on the edge of Cairo city. New Cairo city contains around 138 gated community diverse in their features such as (facilities and amenities, degree of enclosure, safety and security, type of residential housing ... etc.).

5.1 Types of gated communities in New Cairo

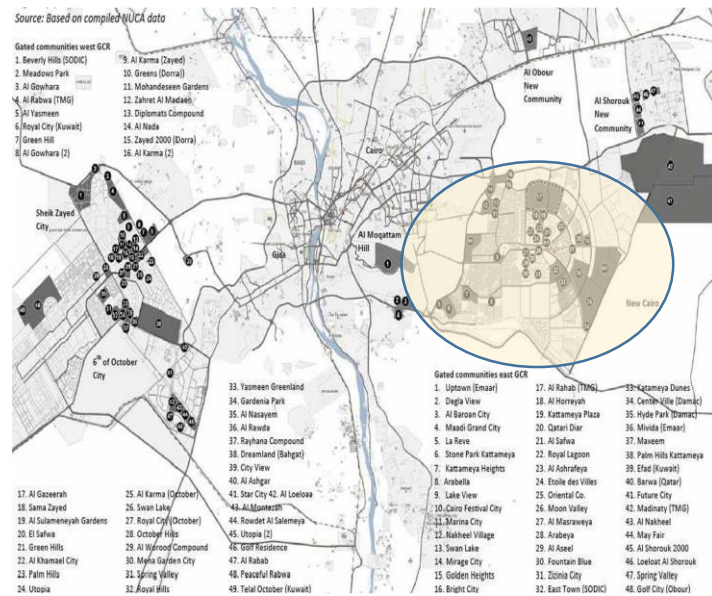


Fig. 1. Gated Communities in Great Cairo Region (GCR), shaded area: New Cairo City. Source: based on compiled NUCA data.

Observations during site visits and analyses of data about GCs in New Cairo allow for the differentiation of four types of gated development categories, **mainly based on residents' economic status and housing types**. Due to the interaction between characteristics and features that form each type of GCs in Egypt, life style, prestige and security-zone are not a reliable criteria to classify the gated community. Therefore, the various types of GCs can be analyzed as follows:

1) Luxurious Gated Community.

This type of Gated community emphasizes the provision of large houses, separate villas and high-end amenities. This suburban settlement has expanded to the edge of GCR and have been introduced as a new concepts in the Egyptian urbanization experience [26]. The investor in this type of gated community target the upper high economic class.

Residents of such gated community share the privilege of being wealthy, they require a distinctive group of features such as facilities, amenities, tight security, privacy, exquisite landscape, and the best property added value. Luxurious Gated Community is similar to prestige GCs but differ in the diverse social status of its residents (since wealth and social status do not co-exist necessarily among residents) and segregation from the rest of community remain the main reason to live in gated community [27].

2) Moderate Gated Community.

An exclusive medium-cost residential subdivision and has moderate features and facilities. This type of gated community differs from a luxurious gated community in terms of prime of housing and design features. These gated communities have a variety of villas and apartment buildings, so, developers and investors are concerned about a number of units to achieve the best profitability.

Predominantly in Egypt, the gated developments are partially

open to public, therefore it includes recreational facilities such as restaurants, malls and food courts. Some gated communities depend on the potential business of non-residents as well as residents [24]. Residents often share life style with other from outside the gated and security may be a minor secondary. This type is similar to Life style type gated community with some different informing its features. We can easily notice that the size of some GCs are expanding until they become the size of a small fully developed city. This large scale gated community would reduce the residence sense of community, however it separate them from their main community, also a sense of ownership develops so the residents refuse to share facilities and amenities with non-residents.

3) Lower high gated community

The form of housing in this type of GCs is different, the apartment buildings are clearly the affordable answer in such GCs. People with low high economic status can afford living there, however the price of properties and the existence of features and amenities also differ from one gated community to the other. While lower high GCs remain a relatively expensive choice compared to city properties, it provides residents with security and better life style. For many lower high economic class residents are convinced that such privileges overcomes the disadvantage of moving away from city Centre.

4) Post enclosed Gated Community

This type of gated community started spreading recently, it does not depend on a single urban planner, but rather uses the mutual desire of a group of residents (probably sharing the same job, such as police, secret service, etc...). This group of residents decided to transfer a group of separate individual properties into a gated community with walls and gates surrounding all boundaries. By doing that residents seek more security and an increase in property values along with the benefits of GCs despite the fact that these communities were not licensed to be gated.

This type of gated community is similar to security-zone type of gated according to Blakely and Snyder's (1997) classification. By using walls and gates what was meant to be a public property became a private property of the residents. Such gated community lacks the existence of facilities and amenities since they were never planned to be. There is also no unified urban or architecture feature to the housing pattern since residents form their own gated development and do not depend on planners or investors.

5.2 Reasons for selected field study of gated communities

The four types of gated community categories are **mainly based on residents' economic status and housing types**. Through analyzing several types of gated communities in Egypt; six of them were selected based on the diversity of:

- The number of gates, shape and material of walls.
- The size of facilities and amenities, the possibility for non-residents to use such facilities without restriction.
- The effect of facilities size and standard towards attracting non-residents and the diversity of using landscape elements.
- Type of residential housing pattern ranging from separate villas, attached, semi-attached units and apartment buildings.
- Pre-planned GCs or post enclosed GCs in which residents built common walls and gates surrounding a group of properties in an attempt to segregate themselves from outside society and to fulfill a desire towards distinction.
- Types of residents' economic status, the economic status is one of the factors that classify the GCs in Egypt.

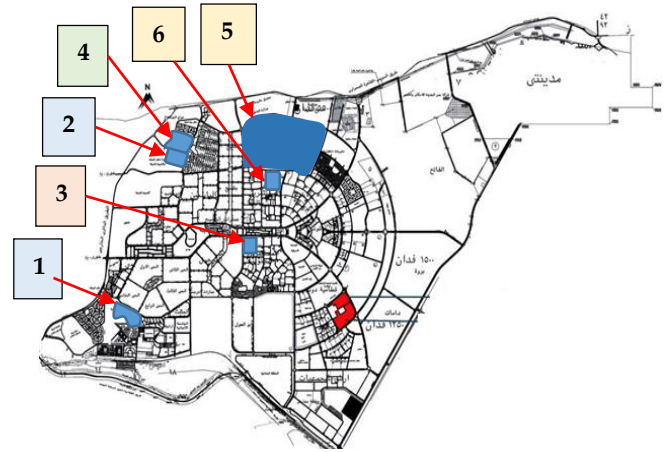


Fig. 2. Field study gated communities'

The GCs Locations within New Cairo city (one of the biggest and most developed new cities on the edges of GCR) were selected based on the size of each, type of features and amenities it provides. The following GCs were selected for field study: **Kattameya Heights , Swan Lake, El Masraweya, El Amn Elaam, El Rehab and Al Horreyah gated community.** The analysis will be done via information gathering methods such as observation, interview and questionnaire fig. 2.

5.1 Observation on the gated communities concerned by study

The following table was created by applying site visits, observation and review of GCs layouts as well as analyzing the features, Table [2].

TABLE 2 : ANALYSIS OF FEATURES INSIDE FIELD STUDY'S GCs. SOURCE: BY RESEARCHER

	Field study's gated communities					
	Luxurious Gated Community		Lower high Gated Community	Post enclosed Gated Community	Moderate Gated Community	
	1.Kattameya Heights gated community	2.Swan Lake gated community	3.El Masraweya gated community	4.El Amn Elaam gated community	5.El Rehab gated community	6-AL Horreyah gated community
Reasons to choose more than one of the GCs own the same type.	Two GCs of this type were selected due to the variety of how activities, facilities and amenities are managed, while the first gated community restrict the facilities to residents, the other gated community allow non-residents to use the facilities and services for a fee.			- -	- -	Two GCs of this type were selected due to a high different in size, El Rehab gated community is 10 times the size of any other study sample. This makes it a fully developed city with all types of features and services available, comparing it with other GCs is simply unreasonable on the other hand ignoring the existence of such a large scale gated community was not possible.
features of gated GC						
[A] Security features	- The use of high and solid walls to achieve the best privacy and separation possible.			- Walls and fences are not solid, they were built for the purpose of separating the GCs from its surrounding. In most cases hollow steel fences are used for separation. - Material of walls is one of the key elements that define and rise the property added value within the gated community.		

	- Gate with limited control access; security guards, police or army. - video, or telephone systems allow visitors to be vetted by residents.	- Gate with limited control access; security guards.	- Gates have lift or swing arm with security guards.	-public streets closed by fences, planters, or concrete barriers. - Cars and pedestrians may enter freely.	- Gates have lift or swing arm. - Some gates with limited control access; security guards. - Cars and pedestrians may enter freely.	- Main gate only have lift or swing arm. - other gates are narrowed entry, removable chains.
	- Entry gates are found as a clear sign of gated community.					
[B] Gates shape and design	- Huge entry and exit gates are a landmark for this type of gated community.		- it has undistinguished gates.		- Landmark gates at main entries.	-it has undistinguished gates.
[C] Function of walls and gates.	- Protecting property values, achieving the best investment possible, preserving the form of gated community, achieving segregation between gated community and its surrounding community even though it is just a false walls, adding a sense of distinguishing.					
	- Protecting economical slandered of the gated developments. Providing the highest level of safety and security. Achieving indoor privacy among properties as well as privacy between gated community and its surrounding.		-	- It wasn't plan to be a gated community. But through resident cooperation gates and walls were built to benefit from the advantages of enclosure.	- Providing a sense of fully developed city which has what it takes to be independent from its surrounding society. Many of large scale gated community can become part of a global network beyond their own gates [28].	-
[D] Services, facilities and amenities	- Has a lot of services, amenities and club house but it is restricted to residents only.	- Has a lot of services, amenities and club house. - It allows non-residents to use the club's sports facility.	- Housing pattern is "apartment buildings". - No services, facilities or amenities are available.	- Housing pattern is "apartment buildings" or a limited numbers of private villas. - It wasn't planned to contain services, facilities and amenities.	- All types of services and amenities are available including club house, It can easily be a stand alone city separate from the main city.	- Minor set of services, with no club house or entertainment facilities.
[E] Urban design features	- Huge care and attention towards urban design element, Creating lakes and golf courts between buildings and surroundings in order to provide elements of beauty and privacy.		- Limited urban design elements, due to limited spacing between buildings and the usage of spaces as parking areas		- Urban design elements are open green areas and parking lots. It is a unified pattern all over the GC owned by the same investor	- Urban design elements are incomplete, this might be because the occupancy rate is low.
[F] Elements of landscape	- Diversity of using landscape elements as an essential pre-requisite for people willing to move and settle within GC.		- Limited usage of landscape elements due to lack of available space and residents centralized care and attention is only to their properties.		- The investor uses various landscape elements to preserve the gated community and promote similar urban projects.	
[G] Housing types	- Housing patterns are separate villas, each has its private garden, almost every villa has own gates		- Housing patterns consists of apartment and	-This district was originally to be a group of		- Housing patterns vary from apartment building, semi or attached villas to separate villas.

	and fence.	duplexes inside buildings with no separation between buildings.	separate villas, but the current situation contradicts that. --Each villa has been divided to smaller apartment in order to achieve the best revenues possible. Also each villa has its own gate and fence, residents built common wall and gate to enclose all of their property together.	
[H] Housing pattern	- Separate Villas are constructed to achieve full privacy for each.	- Buildings are designed to form an enclosed space that being used as parking.	- Depends on the urban planning for the area as a whole, there is no specific pattern for the residential buildings.	- Buildings are designed to form an enclosed space that being used as parking or green area. Villas are located in a linear design. - Villas and residential buildings are located in a linear design.
[I] Type of residents' economic status	- Residents living within GCs in Egypt are classified according to their economic status, Without a link to social or educational status. Segregation is based on resident's economic status only.			
	- Wealthy residents demand excellence and segregation from the rest of society (Upper-high economic level).	- Residents of these type of GCs are medium and low-high economic level, occasionally upper medium economic level seeking better quality of life join in as well. The phenomenon of gated community is no longer restricted to the wealthy, it has spread to include less income slandered.		
[J] Size	- GCs in this study do vary in terms of size, some hold hundreds of housing units while others contain thousands of units. They all seem to be within the same size limit except for El Rehab gated community.			
[K] Traffic limit	- Traffic is restricted to residents, no other vehicles are permitted.	- Non-residents are allowed passage and cruising without restriction.	- Non-residents are allowed passage and cruising without restriction. Public streets are transformed to private due to walls and gates created.	- Non-residents are allowed passage and cruising without restriction.
[L] Location	- All GCs share their location in New Cairo city (one of the most important new developed cities east of GCR), however the location of each may differ in terms how near from main streets and ring road).			
[M] Purchasing price	- For a gated community unites differ gradually, it depends upon group of factors but mainly upon a type of residential housing inside the gated community. The most expensive units are found in luxurious gated community, followed by moderate gated community. The purchasing price of low high and post enclosed gated community are similar. - Investing in properties within a gated community is one of the most profitable investments in Egypt especially in time of unrest. A price of an apartment within the GC can be around 1-2 million L.E, while a villa can be as high as 10 million L.E.			
[N] Resale price	Resale properties in GCs was found to be very profitable compared to others; but the higher the initial value of a property, the harder reselling it becomes.			

5.1 Questionnaire analysis and statistics

The field work analysis tackled the residents’ point of view

(through percentage and statistics) to evaluate features and attractive factors that affected the residents’ decision to reside or invest in GCs, Table [3], [4].

TABLE 3: SAMPLE OF RESIDENTS’ SATISFACTION OF SECURITY AND SAFETY FACTOR

Assessment factors and features		The percentage of residents’ satisfaction											
		Luxurious GC				Lower high GC		Post enclosed GC		Moderate GC			
		1.Kattameya Heights GC		2.Swan Lake GC		3.El Masraweya GC		4.El Amn Elaam GC		5.El Rehab GC		6-AL Horreyah GC	
		OBSERVATION	DEGREE OF SATISFACTION	OBSERVATION	DEGREE OF SATISFACTION	OBSERVATION	DEGREE OF SATISFACTION	OBSERVATION	DEGREE OF SATISFACTION	OBSERVATION	DEGREE OF SATISFACTION	OBSERVATION	DEGREE OF SATISFACTION
Security and	[A]	√	98%	√	93%	√	40%	√	40%	√	60%	√	35%
	[B]	√	80%	√	80%	√	30%	√	10%	√	70%	√	10%
	[C]	√	98%	√	95%	√	20%	√	20%	√	70%	√	7%
	[D]	√	98%	√	90%	-	0%	-	0%	√	50%	-	0%
	[J]	√	95%	√	92%	√	85%	√	85%	√	40%	√	70%
	[K]	√	100%	√	100%	√	60%	-	25%	-	50%	-	50%
	Average		95%		92%		39%		30%		57%		29%

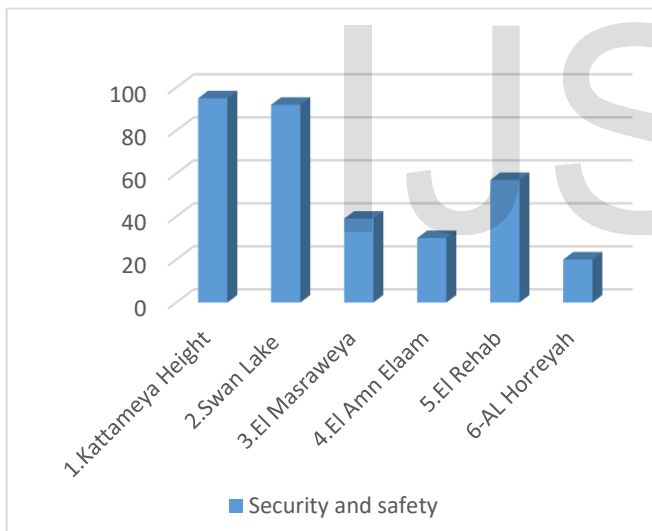


Fig. 3 The percentage of residents' satisfaction on security and safety factors. Source: by researcher

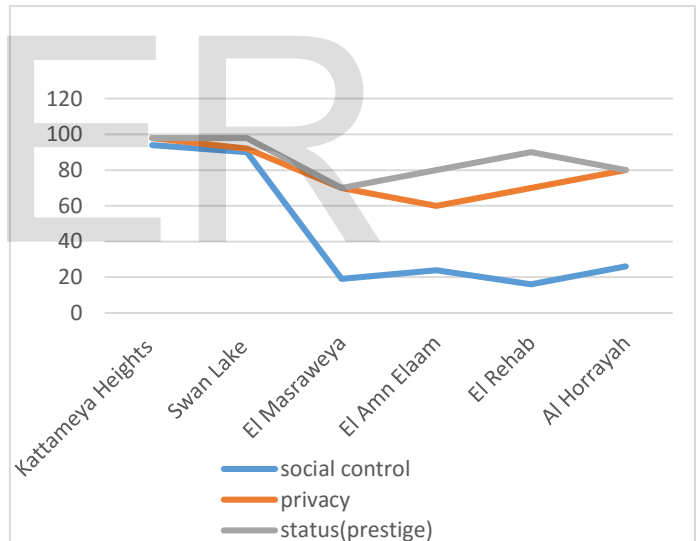


Fig 4 The percentage of residents' satisfaction on social control, privacy and prestige factors. Source: by researcher

-Through analysis, it was found that people living in luxurious GCs feel safe and secure as a result of:
 Good enclosure due to proper usage of gates and walls and usage of modern day technology in securing gates.
 - The sense of safety and security is less if the housing type is residential buildings, residents feel that security increases as attached , semi attached and separate villas are found.
 - Most residents in post enclosed gated community feel that enclosing is a reliable method to achieve prestige and protect property value, while security can be fulfilled at a later stage.
 Fig [3].

- By analyzing interview results, it’s clear that luxuries gated community provide social control, privacy and prestige efficiently.
 - As residents’ economic status begins to decline, the housing type varies and absence of social control is noticeable. -- All GCs provide prestige to its residents at various levels, but as residential buildings become the dominant housing type, this factor diminishes significantly.
 - As for post enclosed gated community gating has achieved prestige to a great extent, even though a unified housing pattern or type does not exist. Fig [4] .

Table 4: The results of the questionnaires analysis for different factors. Source: by researcher

Gated community attracting factors		The percentage of residents' satisfaction					
		Luxurious GC		Lower high GC	Post enclosed GC	Moderate GC	
		1.Kattameya Heights GC	2.Swan Lake GC	3.El Masraweya GC	4.El Amn Elaam GC	1.Kattameya Heights GC	2.Swan Lake GC
		Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire
Social Control	average	94%	90%	19%	24%	16%	26%
privacy	average	98%	92%	70%	60%	70%	80%
Status (prestige)	average	98%	98%	70%	80%	90%	80%
Activities, facilities and amenities	average	95%	90%	80%	70%	40%	80%
Sense of community	average	95%	95%	70%	60%	90%	70%
Clean air, water quality and healthy environment	average	95%	95%	50%	40%	50%	50%
Protecting property value	average	95%	95%	90%	90%	95%	85%

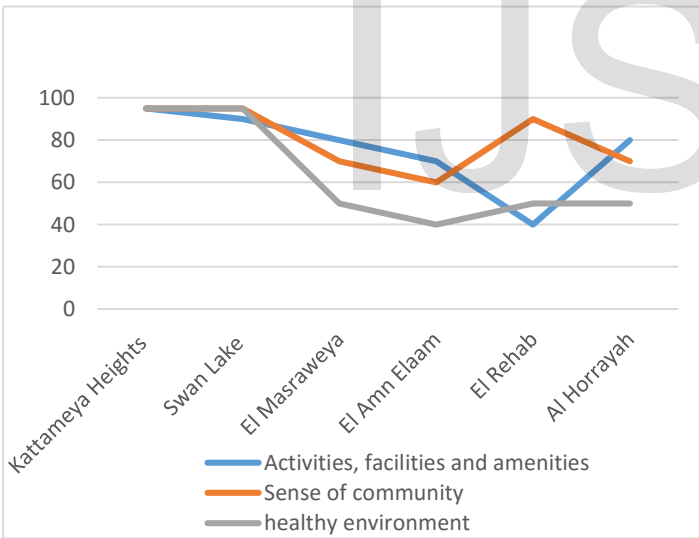


Fig 5: The percentage of residents' satisfaction on activities, facilities, sense of community and healthy environment factors. Source: by researcher

tors sufficiently.

- Its obvious (noticeable) that El Rehab gated community provide services, facilities and amenities but it failed to achieve its residents satisfaction.

- Residents expressed their discomfort towards allowing non-residents the usage of services and facilities.

- All the residents in different communities have agreed that GCs provide protection to property value and a profitable resale price, Fig [5].

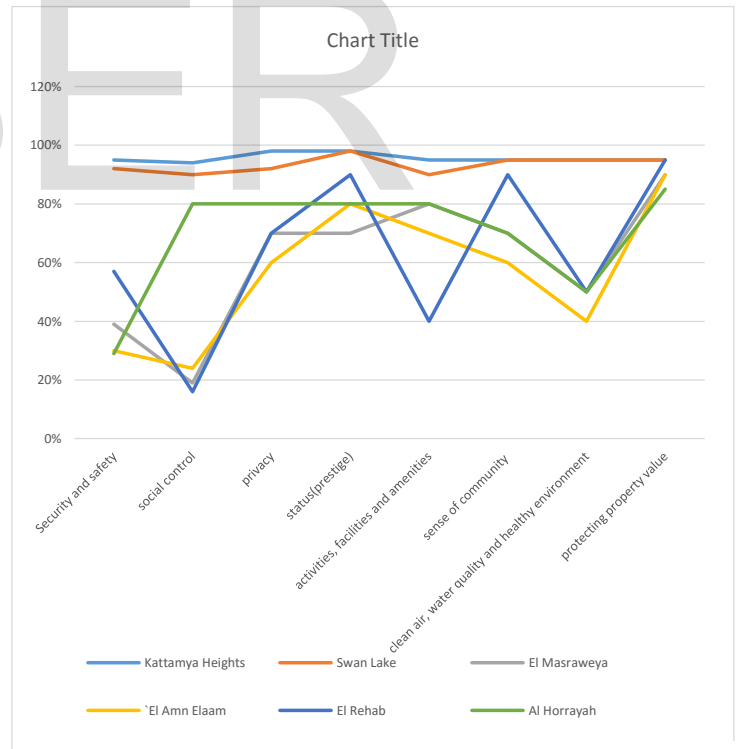


Fig 6: The relationship between the percentage of residents' satisfaction and the gated communities' factors and its features.

Source: by researcher

6 CONCLUSION

Through the analysis of six of GCs in New Cairo (one of the most important new cities east of Cairo), the study concluded that - :

- GCs in Egypt don't follow Blakely and Snyder (1997) classification (Life-style, prestige, security-zone), due to the variety of features (housing type, housing pattern, ...etc) and how they interact to meet residents' needs.
- Analysis revealed that the proper classification of GCs in a developed country like Egypt should be based on residents' economic status, so the main types are Luxurious GC, moderate GC, lower high GC and post enclosed GC.
- Evidence showed that social status doesn't necessarily accompany economic status.
- Residents don't accept oversized gated community and sharing services, facilities and amenities with non-residents, even if it increases the property value. It also decreases the residents' feeling of social control (El Rehab GC), Fig [6].
- Large GCs reflect diversity of social and economic status; and cover all resident's needs (El Rehab GC).
- The lack of governmental policies, housing designs, urban design and the legal frameworks raises queries about the future of the escalating phenomenon.
- Gated communities wealthy residents retreat behind walls but there is still fear behind the walls. This fear was shown through solid walls and high fences around their villas although there are fences and gates around the GCs; and/or to limit socializing with others.
- Local policies aim to provide all types of facilities and public utilities to new communities, but as privatization was implemented, private sector (with profitability as its main goal) took over the responsibility of urban development of these communities. Eventually, this led to escalating property prices rapidly.
- Due to the escalating demand for GCs; new types that were not known before emerged. Some of GCs were pre-planned and others were modified such as post enclosed communities which didn't have common urban or architecture features.
- GCs were considered one of the best investments in Egypt, providing residents with prestige, preserving property value, even though security may not be fully implemented, Fig [6].
- GCs are a major attraction that motivate residents to move to the outskirts of heavily populated cities such as Cairo.
- Due to the success of El Rehab GCs (built in the early ninetieth) investors used that success as a marketing tool to promote similar (even larger) projects such as Madinaty (a large scale and more developed version of El Rehab).

FURTHER STUDIES

Recommended further studies for:

- Optimum size and facilities of GCs that achieve residents' satisfaction.
- Policies, plans and the legal frameworks of GCs to ensure

appropriate management of the escalating phenomenon.
- Future sustainable housing and urban designs for Gated Communities developments.

REFERENCES

- [1] E. J. Blakely and M. G. Snyder, "Fortress America: Gating Communities in the United States," Brookings Institution Press and Lincoln Institute of Land Policy, Washington, DC, 1997.
- [2] K. Landman and M. Schonteich, "Urban Fortresses, Gated Communities as a Reaction to Crime," *African Security Review*, P 71-85, 2002.
- [3] J. Grant and L. Mittelsteadt, "Types of Gated Communities," *Environmental and Planning B: Planning and Design*, Volume 31, Pages 913-930, 2004.
- [4] K. Landman, "Gated communities in South Africa: A national survey," Pretoria: CSIR Publications, 2003.
- [5] L. Mumford, "The city in history," New York: Harcourt, Brace and World, 1961.
- [6] J. Hackworth, "The Neoliberal city: Governance, ideology, and development in American urbanism," Ithaca: Cornell University Press, 2007.
- [7] D. Harvey, "A brief history of neoliberalism," New York: Oxford University Press Harvey, 2005.
- [8] T.P.R. Caldeira, "City of walls: Crime, segregation and citizenship in Sao Paolo," Berkeley: University of California Press, 2000.
- [9] S. Low, "Behind the Gates: Life, Security and the Pursuit of Happiness in Fortress America," New York, USA: Routledge, 2003.
- [10] O. Uduka & S. Bagaen, "Gated Communities: social sustainability in contemporary and historical gated developments," *Earthscan*, 2010.
- [11] R. Atkinson, S. Blandy, J. Flint and D. Lister, "Gated Communities in England," London: Office of the Deputy Prime Minister, 2004.
- [12] A. Borsdorf, R. Hidalgo and R. Sanchez, "A new model of urban development in Latin America: the gated communities and fenced cities in the metropolitan areas of Santiago de Chile and Valparaiso," *Cities*, 24(5), 365-378, 2007.
- [13] R.H. Nelson, "Private Neighborhoods and the Transformation of Local Government," Washington: Urban Institute Press, (2005).
- [14] C. Webster, "Property rights and the public realm: gates, green belts and Gemeinshaft," *Environment and Planning B: Planning and Design*, 29, 397-412, 2002.
- [15] G. Rosen and E. Razin, "The rise of gated communities in Israel: Reflections on changing urban governance in a neo-liberal era." *Urban Studies*, 46(8), pp 1702-1722, 2009.
- [16] P. Kuppinger, "Exclusive greenery: new gated communities in Cairo," *City and Society*, 16(2), 35-61, 2004.
- [17] C. Webster and LW-C. Lai, "Property Rights, Planning and Markets: Managing Spontaneous Cities," Edward Elgar, Cheltenham, Glos, 2003.
- [18] M. LaCour-Little and S. Malpezzi, "Gated communities and property values," manuscript, 2001.
Contact authors at michael.lacour-little@wellsfargo.com, smalpezzi@bus.wisc.edu
- [19] M. Lianos, "Social control after Foucault," *Surveillance and Society* 1, 412 - 430, 2003.
[http://www.surveillance-and-society.org/articles1\(3\)/AfterFoucault.pdf](http://www.surveillance-and-society.org/articles1(3)/AfterFoucault.pdf)
- [20] A.E.J. Morris, "History of urban form before the industrial revolutions," (Third Edition), Harlow, Essex: Longman Scientific & Technical, 1994.
- [21] SW. Greenberg and W. Rohe, "Neighborhood design and crime" *Journal of the American Planning Association* 50 48 - 61,

1984.

- [22] D. Maharidge, "Walled off," Mother Jones November/December pp 26 - 33, 1994.
- [23] I. Saif, "Challenge of Egypt's Economic Transition," Carnedie Endowment for International Peace, 2011.
- [24] p. Verme, B. Milonovic, S. Al Shawarby, S. El Tawila, M. Gadallah and E. A.ElMaged, "Inside Inequality in the Arab Republic of Egypt: Facts and Perceptions across people, Time and Space," The World Bank, International Bank for Reconstruction and Development, 2014.
- [25] Company reports, HSBC estimates, 2013.
- [26] R. Almatamah, "Choices and Changes in the Housing Market and Community Preferences: Reason for the Emergence of Gated Communities in Egypt- Case Study of Great Center Cairo Region (GCR)," Ain Shams Engineering Journal 4, 563-583, 2013.
- [27] E. Charmes, "Gated communities: Ghettos for the rich," Books-ideas.net, 2012.
- [28] O. Uduku, Samer Bagaeen, "Beyond gated communities," Routledge, 2015.
- [29] Chris EMcGoey, CPP, CSP ,CAM, "Gated Communities- access control issues," Crime Doctor, your prescription for security & safety, 2015.
- [30] Atkinson, R., Blandy, S., Flint, J. & Lister, D., "Gated Communities in England," London: Office of the Deputy Prime Minister, 2004.

IJSER