

Full Length Research Paper

Living in high-rise: An analysis of demand for condominium properties in Colombo

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Colombo has witnessed a higher concentration of low-rise and high-rise condominiums during the last few years. This paper examines the contributing factors for living in high-rise that has created a market for condominiums in the city of Colombo. Managers of purposively selected ten high-rise condominiums and 30 households from 03 low-rise condominiums were interviewed for the primary data collection. With the help of elementary statistics, data were analyzed descriptively. The study revealed that demographic and economic changes in the city during the last few decades have influenced the creation of the condominium property market in Colombo. In case of low-rise condominium properties, well-educated middle-income earners who have migrated to the city for various reasons have raised the demand. At the same time, foreigners and affluent Sri Lankans have raised the demand for high-rise condominium properties considering the security, convenience and location of properties.

Key words: Condominium, demographic and socio-economic factors, housing, living in high-rise, property market.

INTRODUCTION

During the past few years, Colombo is having a boom in development of condominium properties; due to the demand for condominium in the city, is increased (Wijeyaweera, 2006). Colombo as the largest metropolitan city in Sri Lanka, its' economic development has been significant in the country. When a city is developed, usually a large population migrates into the city for better living, employment purposes, education, and so on, which increase a continual demand for housing and other infrastructure development. In the case of Colombo, most of the developable lands have already been utilized. There are small individual parcels of land scattered throughout the city which are offered for housing and commercial uses at relatively high prices (Perera, 1995). Hence, it should be noted that scarcity of land, particularly in the urban areas supplemented by the

increase in population density has prompted high-rise apartments to evolve as a higher growing sector in the area of housing. Within Colombo, a mixed housing development can be seen. When the large extent of slums and shanties are excluded, the balance stock consists of mix housing units occupied by middle and upper income groups. These include single houses, annexes, flats and apartment buildings. Therefore, multi-storied apartments are important for the housing stock of Colombo. Most of the high-rise condominiums are sold at higher prices due to higher demand. The target groups of high-rise condominiums are foreigners who work in Sri Lanka and non resident Sri Lankan professionals who invest these properties as retirement option as well (Senevirathna, 2005). Therefore, high-rise condominiums are termed as luxury apartments. These offer facilities similar to properties in developed countries (Ariyawansa, 2007, Wijeyaweera, 2006).

The other type of condominium that is semi luxury is popular among the middle-income people. Most of these semi-luxury condominiums are low-rise and are located in

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Table 1. Condominium housing model determinants.

Demand side factor	Supply side factor
Demographic factor (family size, number of families etc...)	Land cost
Personal disposable income	Construction cost
Price of housing service	Prime lending rate
Stock price	Cost of capital
Commodity price	Retail price index (inflation)
Expected appreciation of house price	Expectation of housing price
Mortgage interest rate	Housing completion
Total outstanding mortgage	Housing stocks
Tax rate	
Money supply	

Source: Ting (2001).

the Wellawatte area. People from the North and the East who sought refuge in the city during the war have bought most of these semi-luxury condominiums (Wijeyaweera, 2006). Generally, location, surrounding development and scenic beauty are common determinants of the demand for condominium properties (Zarin and Bujang, 1999).

However, this study attempted to analyze the particular factors that determined the rising demand for high-rise apartments in Colombo. Specially, it analyzes the socio-economic factors that encourage living in high-rise in condominiums in Colombo.

METHODOLOGY

Primary data was collected from 10 high-rise condominium properties which are termed as luxury condominiums in the city. Interviews were conducted with the residence managers using a semi structured questionnaire. Further, 30 occupants from 3 low-rise condominiums in Colombo were interviewed inquiring about their household size, occupations, income, rent paid and the reasons for selecting a condominium etc with the help of structured questionnaire. Secondary data was collected mainly from the Colombo Municipal Council, the Colombo Land Registry and the Condominium Management Authority. Residents were interviewed in low-rise condominium as it was convenient to meet them. However, for luxury apartments, it was decided to interview managers as it was extremely difficult to meet residents. Data analysis was done descriptively with the help of elementary statistics. Firstly, the analysis was done by means of secondary data gathered through literature search. Secondly, the analysis was done by means of primary data collected from managers and residents.

THEORY AND CONCEPT

Condominium concept

It is well known that a condominium is a building or a structure which has two or more stories consisting of parcels, owned and/or used separately by individuals and remaining portion of the property being owned by the

owners of individual unit in common (Gajanayake, 2006; Wedamulla, 1997). In Sri Lanka, legal framework for condominium concept has been provided by the Condominium Act No 12 of 1970 and this Act was replaced and introduced as Apartment Ownership Law No 11 of 1973. Under the Section 02 of the Law, the condominium property means “a property comprising land with building or buildings of more than one unit of residential or non-residential accommodation”. In fact, the liberalized economic environment and urbanization process that has prevailed in last four decades has made heavy emphasis on the need of more residential properties in the city of Colombo. Associated with the issue of scarcity of land, the current socio-economic situation has raised the demand for residential condominiums.

The theory of demand and supply

All commodity markets including real estate markets are interactions of two distinct groups, that is, buyers and sellers or demand and supply forces. However, analysis of demand for “real estate” is different from analysis of demand for other goods because real estate has some unique characteristic (Cam et al., 1988). In order to apply simple supply and demand analysis to real estate markets, a number of modifications need to be made to standard microeconomic assumptions and procedures (www.wikipedia.org/wiki/Real-estate_economics). Such characteristics of real estate markets must be accommodated according to the context. These characteristics include durability, heterogeneity, high transaction costs, long time delays and immobility etc. An empirical study carried out by Tine (2001) examines economic and market factors that derive demand, supply and pricing of condominiums in Singapore and has identified several macro-economic determinants of house prices. These are shown in Table 1. Another study carried out by Zarin and Bujang (1999) on factors

Table 2. Main factors that influence demand.

Main factor	Ranking
Location of development	1
Characteristics of the building	2
Price	3
Recreational facilities	4
View	5
Marketing	6
Financing	7
Management	8
Surrounding area	9
Investment	10
Reputation of the developer	11

Zarin and Bujang (1999).

influencing demand for condominiums in Johor Bahru, Malaysia, points out that demand for condominium property is mainly generated by “overall population growth”, “urbanization”, “level of income” and “mortgage finance”.

Apart from the aforementioned factors, this study mentions eleven other factors that influence the demand for condominium properties. These factors were ranked into 1 to 11 showing the most and the least important factor as shown in Table 2.

DEMAND FOR CONDOMINIUM PROPERTIES IN COLOMBO

There has been a significant growth in the residential apartment market in Colombo during the last two decades. The main reasons behind this upsurge include the population growth, changes in living patterns and the soaring prices of property particularly in urban areas of the country. Wijeyawardena (2006) explains that there are four reasons for the increase in the current demand for condominium properties in Colombo. They are “public transport”, “security”, “public utility service” and “central sewer and waste water system”. Public transport is a major factor in deciding ones’ place of living. Security is another major factor for the people to live in apartments and especially many Tamil families have decided to live in apartments for safety. Schools, hospitals and play grounds are less developed in outstations. Specially, all popular schools are located in and around the city of Colombo. One of the main criteria of admitting students to a school is the distance and naturally people would like to be in the city. High land values in cities also increases the demand for condominiums or the high -rise apartments as a better option to detached housing units even in a small land parcel.

Seneveratne (2005) points out that scarcity of land is the main reason for the construction of high rise

apartments and that the emergence of modern construction technologies too has affected the development of high rise buildings.

SUPPLY OF CONDOMINIUM PROPERTIES IN COLOMBO

(Amendment) Act No 39 of 2003, it is mandatory to get a certificate for common amenities and common elements from the General Manger of the Condominium Management Authority to register a condominium plan. Condominium Management Authority has started to issue this certificate since year 2005. Database of Condominium Management Authority indicates that nearly 90% of certificates issued are for the Colombo district by the year 2010 (Condominium Management Authority, 2011). This statistic implies that the condominium suppliers are more active in Colombo.

DETERMINANTS OF LIVING IN CONDOMINIUM IN COLOMBO BASED ON LITERATURE ANALYSIS

Population growth

According to the last population and housing census in Sri Lanka (2001), Colombo city population was 642,163 which represent 28% of the total population of the Colombo district and 52% of the entire urban sector of the Colombo district. It has been estimated that residential population of the Colombo city will reach one million in the year 2010. According to UDA, the average annual growth rate is estimated at 2.42% in the year 2010 (UDA, 1998).

Decreasing household size

Household size of the Colombo district is getting smaller

during past decades. In 1971, the average household size was 5.9, while in 1981 it was 5.4, and in the year 2001 it was 4.3 (Census and Statistic Department, 2001). Since the size of the condominium unit is small, the smaller families may find it acceptable to move into this type of houses.

Age structure of population

In addition to the population growth and household size, age structure is also important. 59.4% of the population of the Colombo district falls into age category of 20 to 59 years (Department of Census and Statistic, 2001). This category was found to be the most active group in the house market according to a previous study (Ariyawansa, 2007). Therefore, the volume of this age category is one of the determinants of demand for housing.

Growth in household income

Income is an important factor for housing demand. The potential demand for housing appreciates with increasing incomes of people. Due to the country's strong economic performance, the employment rate has increased and respectively the unemployment rate has decreased (unemployment rate of the Colombo district remain at 4.4% in the year 2009) (Central Bank Annual Report, 2009). Per capita income is increased by 8.1% as up to Rs.235, 945/= in 2009 from Rs.218, 617/= in 2008 (Central Bank Annual Report, 2009). It has been estimated that around 50% of the GDP is generated from the Western province (including Colombo). For example, in the year 2009, Western province contribution to the GDP was 45.1% and in 2008, it was 45.4% (Central Bank, 2010). Therefore, it is clear that the income level of the people living in Colombo is high. This can be discerned from the last Income and Household Expenditure Survey carried by the Department of Statistic in 2009/2010. Therefore, it is indirectly shown that in many families, both husband and wife are working. This proves that there are an increasing number of double income families due to more women entering various economic activities. Therefore, if income is increased, standard of living will also be increased and this will increase the demand for housing including apartments in condominium where facilities are near the door.

Urbanization

The potential demand becomes more apparent with population growth and also urbanization. A rapid economic development was taking place during the last few decades in Colombo. According to the population and housing census in the year 2001, out of the total urban population of the Colombo district (1,221,904),

52% (624163) of the people were living in the Colombo Municipal Council area. Therefore, urbanization of the city is a major factor to increase the demand for housing in general.

Scarcity of land

The land use distribution in Colombo city shows that residential land use takes up 37.6% (1401 ha) of the available land (UDA, 1998). According to the Urban Development Authority (1998), 700,000 people lived in 1402 ha of land in 1994. Therefore, the net residential density of the city was 475 persons per ha. The residential density within the city range was from 165 to 1537 person per ha (UDA, 1998). Further, the Colombo Development Plan proposes to reduce the extent of residential land use from 1401 to 691 ha by 2010 (in fact, this plan was not fully implemented and instead new proposals are being come up after the war under the vision 2020 as in www.uda.lk). Therefore, residential density will be increased from 475 to 709 persons per ha. As a strategy, it is proposed to increase the density of housing units. That means housing development in the future will likely to be high-rise housing schemes if this plan is implemented.

Land value

When the land is scarce, land value/price is automatically increased. According to the City of Colombo Development Plan, land value of the city of Colombo is increasing at the rate of 16.5% per annum, whereas the land values in the suburban areas increase by around 18% per annum (this is extremely higher in practice). Land value of the prime residential areas of the city is above 10 millions. Therefore, to purchase 6 perches of land (minimum land required to build a house) in such an area requires at least Rs. 60 millions. It should be noted that the construction costs are also high in Colombo. When considering these facts, purchase of a condominium unit is cheaper than building a house since a luxury condominium unit even in Cinnamon gardens area, which is the most sought after area in the city is comparatively less expensive. When land value/price increases, low and middle income people cannot afford to build their own houses in individual land plots. Therefore, high land value in the city creates a demand for non-landed houses in a condominium unit.

DETERMINANTS OF LIVING IN CONDOMINIUM IN COLOMBO BASED ON RESIDENTS' VIEWS

According to the literature, determinants of demand include price, income, taste and household characteristics such as household size etc. Therefore, this study adopted the similar set of determinates to analyze the

demand factors for low-rise condominiums. Using 30 households in low-rise condominiums in Colombo, the determinants of demand for the low-rise condominium properties were analyzed. The following paragraphs briefly discuss the determinants.

Price

When purchasing a house, people initially investigate its price. Higher land values in the City of Colombo cause to lesser demand for detached houses and people will switch to demand for non-land houses in terms of condominium units. Price of a condominium property will change with the floor area of the unit, available facilities, location characteristic etc. Sample contained three condominium properties that were located in Borella, Wellawatta and Bambalapitiya (floor area is the same). Within the sample, minimum purchase price of condominium property is Rs1.4 million in the year 1992 but in the year 2006 price was Rs15 million which is a ten times increase.

Rental value

Out of all respondents, 63.33% had freehold ownership of condominiums and other 33.67% were living as tenants. Within the sample, maximum rent paid was Rs22000 and minimum rent paid was Rs15000. Floor area was ranging from 1000 to 1500²ft. Therefore, medium rental value for this low rise condominium property was Rs18000/= during the study period.

Income

Second important factor for determining the demand for condominium property was the income. It is required to have a higher disposable income to acquire an owned house. As it is mentioned, the income level of people living in the Colombo city was higher than other parts of the county. In this sample, 63.33% of people were having ownership of condominium unit and their monthly income was between Rs30000 to 50000/= and more.

Demographic characteristic

According to the literature review, one of major determinants of demand for housing was demographic variables such as age, occupation, education background and race etc. Majority of respondents were in aged between 36 to 55 years (73.33%) and all were married. Household size was varied from 7 to 2 people and average household size of this low rise condominium was 3.7.

Occupation and education background

Majority of respondents was employed in the government sector and others were professionals. Within the government sector, some hold executive level posts such as divisional secretaries, army officers etc, others were working on other government institutions as teachers, surveyors etc. Living in a condominium property is vastly different from living in a separate housing unit. For families living in this type of multi-family building, "occupation" was a matter of concern. It was found that persons engaged in reputed employments prefer to live in condominiums.

Migration

Nearly 2/3 of the sample consisted of households migrated from the North and the East regions. Some of them migrated to the city during the war period. By interviewing those persons, it was revealed that those people had been living in large houses in Jaffana and the war forced them to migrate into Colombo. They preferred to live in condominiums because condominiums were safer than single houses. Others have migrated seeking employment before start of the war. Sinhalese have migrated to the city for employment, education and better living.

Consumer preference

In addition to the factors like price, income and demographic characteristic, there may have several other reasons for people to demand this type of special property. The questionnaire asked respondents to rank reasons for selecting a condominium property. Over 56% of respondents concerned conveniences as the major factor to select a condominium property. Because of regular maintenance work, repairs, garbage collection were done by the management of the condominium. On the other hand their vehicles were protected by the security well. Under this aspect, convenience to employment, children's education, public utilities and other infrastructures were important. For instance, majority of respondents (56.67%) were living in condominium property in Colombo for their employment purposes. Other 23.33% of residents were living in low-rise condominium units seeking school facilities. No one concerned social status as a major factor in buying a condominium unit in the low-rise market while privacy is lightly concerned.

DETERMINANTS OF LIVING IN CONDOMINIUM IN COLOMBO BASED ON MANAGERS' VIEWS

Multi-stored high rise apartment complex is another

growing sector in the housing industry (Senevirathana, 2005). Buyers' preference of this high rise condominium market was evaluated according to the residence managers' perspectives under the common areas of concerned in purchasing a house as follows:

Price

The observed ten high rise condominium properties come under the category of luxury condominium properties because of the availability of facilities such as swimming pools, gymnasiums, clubs, restaurants, play grounds etc. Therefore, these types of high rise condominiums were priced at higher amount compared to low-rise condominium properties. According to the residence manager of Hyde Park Residency, the price of a condominium unit in their condominium was between Rs40 to 50 million and each unit having three bed rooms and full air-conditioning. But the local market price of condominium unit was 10 to 15% lower than the foreign market price.

Demographic characteristic

Majority of occupants of these ten condominiums were foreigners who were working in Sri Lanka. Among them majority were working on embassies and multinational companies. Most of them were using properties on monthly rental basis. Sri Lankan people who live abroad also have brought these condominium properties as holiday homes. According to the residence managers' point of views other than families, ageing Sri Lankan (single) and unmarried woman preferred these properties because of safety.

Security

According to the residence managers' point of view, foreigners prefer to live in condominium properties for higher security than living in single houses. All of these high rise condominium properties have 24 h security system, fire protection system etc. None can enter into these properties without permission of the residence manager or the occupants of the condominium.

Connivance

These condominium properties have all the facilities that are available in a Five-Star hotel including high speed modern lift, swimming pool, gymnasiums, club, restaurant, play ground, laundry etc and it offers everything at one place. This was a reason that many foreigners were demanding for condominiums. The other reason was that regular maintaining of works and repairs were carried out by the management corporation.

Location

Location was another factor that determined the demand for this type of properties. Most foreigners wished to live in Colombo because it was easy to reach the airport and their places of work. On the other hand, most of these condominium properties were located in the prime residential area of the city.

Tax exemption

According to the recently amendment financial Act, 100% transfer tax was applicable to non-citizens who bought properties in Sri Lanka. However, exemption was granted under extra ordinary gazette No 1386/18 on 30/03/2005 (Board of investment, 2005), according to that exemption, when non-citizens bought condominium units above the 4th floor, they were exempted from the 100% tax. Therefore, foreigners used to buy condominium units above the 4th floor. Therefore, price of upper floors was higher than lower floors compared with other counties where condominium property price of lower units was higher than the price of upper units because of difficulty in accessibility.

Conclusions

Development of condominium properties is a new trend in the housing market in the City of Colombo. Recently, a large number of high-rise and low-rise condominiums came into the market. This study evaluated the determinants of demand for living in the condominium property units. Economic developments and higher land values have generally been the causes of demand for living in condominiums in Colombo. Furthermore, the other demographic factors as smaller family size, age, migration etc are more supportive factors for the demand for living in condominiums. Changing life styles, coupled with educational needs, family occupations, privacy and security are some social aspects in raising the living in condominiums in Colombo. Finally, it can be concluded that various demographic and socio-economic changes of the city during the last decades have influenced to create the condominium property market in the city of Colombo in general.

In particular, well educated, middle income earning people who migrated to the city for various reasons have raised the demand for low-rise condominiums while foreigners and affluent Sri Lankans have raised the demand for high-rise condominium property considering the security, convenience and location.

REFERENCES

Ariyawansa RG (2005). Urban land and property markets in Colombo,

- Sri Lanka: Its way through past decades, an abstract published in the Conference Processing. 10th International Conference on Sri Lankan Studies. University of Kelaniya. Sri Lanka. p. 125.
- Ariyawansa RG (2006). Issues in urban land and property markets in developing and transitional countries: some experiences in Sri Lanka. Invited editorial. *Built Environment Sri Lanka*, 2(1): 1-2.
- Ariyawansa RG (2007). An empirical study of consumer behavior in the housing market in Colombo. *Built Environ. Sri Lanka*, 8(1): 11-19.
- Carr, N., Rabianski, J., Racster, R., Seldin, M. (1988). *Real Estate Market Analysis: Technique and Applications*. Englewood cliffs. NJ Prentice Hall Publishing Company.
- Central Bank of Sri Lanka (2009). Annual Report 2009. Central Bank publication. Sri Lanka.
- Central Bank of Sri Lanka (2010). Press Release. Communication Department of Central Bank. Sri Lanka.
- Department of Census and Statistic of Sri Lanka (2001). Population and Housing data: Colombo district. available at www.statistic.gov.lk/census2001/population/as-dis/ethnicity.htm.
- Department of Census and Statistic of Sri Lanka (2010). Household Income and Expenditure Survey-Preliminary report 2009/2010. available at [www.statistic.gov.lk/PreReportHIES2009Eng\(1\).pdf](http://www.statistic.gov.lk/PreReportHIES2009Eng(1).pdf).
- Foxley S, LaSalle JL (2001). Serviced Apartment in the UK a Growth Sector. *J. Propt. Invest. and Fin.*, 19: 79-89.
- Gajanayake PSL (2006). Obtaining condominium property as security for bank advances. *Condominium*. p. 12.
- Government Publication (2003). Apartment Ownership Law (Amendment) Act. No. 39 of 2003. Colombo. Sri Lanka.
- Gunawardena ND, Samarajeewa G A (2006). A study on quality gaps in private and public sector residential apartments. available at www.smallbusiness.lk/edocs/download.asp.
- Perera ALS (1995). Some characteristic of the demand and supply of land and property in the Colombo urban area. *Econ. Rev.* June/July. 1995.
- Tine F S (2001). Dynamic of the Condominium property market in Singapore. *Int. Real Estes. Rev.*, 4: 135-155.
- Urban Development Authority of Sri Lanka (1998). City of Colombo Development Plan. available at www.buildsrilanka.com/CDP/TOC_vol_1.html.
- Wedamulla A (1997). Condominium property and the management of condominium. *Real Estate Review*. J. Institute of Real Estate and Economy. Sri Lanka. pp. 25-33.
- Wijeyawardena DH (2006). Colombo once a garden city turning into a concrete jungle. available at www.dailynews.lk/2005/06/02/fea06.htm (4 July, 2005).
- Wijeyaweera CA (2006). Condominium development, management and condominium law. available at www.singerl.com. www.en.wikipedia.org/wiki/Real_estate_economics. www.property-report.com/cachvives.php?id=473&dete=0605.
- Zarin HA, Bujang AA (1999). Factors influencing Demand for condominium property in Johor Bharu, Malayshiya. Paper presented at the International Real Estes conference held at Faculty of Geo-information Science and engineering of the University of Telenologic Malaysia.