The Impact of Social Infrastructure on Mixed Use Developments

1+1=3
In 2008, the Centre for Economic Performance (CEP) at the London School of Economics published research for England showing high performing (academically) schools can have an impact between 3% and 12% on property prices in the surrounding area. While in Dubai and Cairo there can be 11% to 15% premium for having a school in the communities.

An article published in 2009 in the International Journal of Housing Markets and Analysis suggests much higher premiums of up to 18% can be achieved by adding water views. In Dubai and Cairo this premium is in the range of 10% to 15%.

Research conducted by Colliers suggests much higher premiums up to 30% in Cairo compared to 15% in Dubai, can be achieved by having a Golf Course View.

A study published by Lloyds Bank in the UK suggests that a Waitrose supermarket can attract a 12% premium on property values. In Dubai and Cairo one can achieve 15% to 20% premium having proper retail in the communities.
Introduction

To understand how social infrastructure adds value to mixed-use developments, analyse its’ price points. What does a Waitrose supermarket, water views and high performing schools have in common? They all contribute to attracting price premiums on property values.

A study published by Lloyds Bank in the UK suggests that living near Waitrose supermarket can attract a 12% premium on property values. An article published in 2009 in the International Journal of Housing Markets and Analysis suggests much higher premiums of up to 18% can be achieved by adding wide water views. In 2008, the Centre for Economic Performance (CEP) at the London School of Economics published research for England showing high performing (academically) schools can have an impact between 3% and 12% on property prices in the surrounding area.

This whitepaper evaluates the key elements that define a residential mixed-use development, specifically comparing two key regional markets which are world leaders in developing large-scale communities – Dubai and Cairo; the former, popular for expatriate living, while the residential market of the later is primarily focused on local residents. Colliers will consider the key elements that create the added value on house prices - more specifically the “inner additional” components within mixed use projects that can create value.

Whilst seemingly obvious, the better performing development usually contain components of open space that drive desire from the purchaser. However, land is a major cost and careful consideration must be given to its reallocation from development density. Public squares, walkways and boulevards that enable people to enter the area and navigate their way through all bring a desirability at the human contextual level. They also drive footfall to and through retail areas increasing the sales patterns and driving rents whilst adding retail into the land use.

Colliers’ with over 20 years’ regional experience as development advisors for a number of mixed used masterplan projects - ranging from a small mixed use development to new cities or the regeneration of existing cities the largest being over 700 square kilometers, our research suggests that price premiums for simply being within a well-designed mixed use project can range from 15% to 30% in Dubai and 25% to 45% in Cairo. These percentages increase substantially when items such as developer brand, proximity to retail, education and healthcare, and more recently walkability is added into the equation. Colliers research and experience in developing pricing matrixes/ models for mixed use communities suggest the hedonic house pricing theory revolves around a multiplicity of components for mixed use projects; ingress and egress, softscapes, retail (goods and services) and social infrastructure facilities; this is Tier 1 of the model. The price premium model also contains a second tier, Tier 2 focuses on the individual unit within the development. There are again a number of components that can come together to add value; situation, floorplans, parking, exterior design, to name a few. Among these aspects the View from the unit plays a vital role in detemining its price.
مقدمة

والسيلة الملكي لإدراك القيمة التي تضيفها البنية التحتية الاجتماعية إلى المشاريع ذات الاستخدامات المختلطة هي تحليل النظرة السعرية. لدينا تجارب، ما هو العامل المشترك بين سوبرماركتات وبيوت العقارات المطلة على الشاطئ والمدارس عالية الجودة؟ إنها كلها تساهم في رفع القيمة السعرية للعقارات المحيطة بها.

تقوم هذه الورقة البحثية تقييماً للعوامل الرئيسية المؤثرة على المشاريع السكنية ذات الاستخدامات المختلطة، وتقطع هذا عبر إجراء مقارنة بين التنين من الأسواق الإقليمية الرئيسية ذات الريادة العالمية في تطوير المجتمعات العمرانية واسعة النطاق، لا وهما دبي والقاهرة، حيث تشير الأولى بضغماً أعداد المستثمرين المقيمين فيها، بينما يركز سوق العقارات السكنية في الثانية، بالإضاوء الأول على مواطني الدولة. عكس كلاً من كلاً، حيث تحقق القيمة الفعلية الصافية لأعرار المنازل، ويشكل أكثر تحديداً. المكونات "الإضافية الداخلية" القدرة على خلق القيمة الإضافية ضمن المشاريع ذات الاستخدامات المختلطة.

ثم يمكن أن تكون المشاريع الأفضل أداءً هذ هي تلك المحتوية عادة على مكونات ذات مساحات مفتوحة واسعة تثير إقبال المشترين، إلا أن الأرض في حد ذاتها تعد عنصر ثقلية رئيسية ما يجعل من تخصيصها للمشاريع السكنية عالية كلفة الأمر، ودراسته علامة فاصلة. فالمواقع العامة والمنطقة المزخرفة لأعرار المنازل، والشوارع التي تتيح الأجواء وتشجع الدخول إلى منطقة ما والفناء فيها بحرية، كلها عناصر عالية الجاذبية في نظر الناس، كما أنها تمثل عصر جذب السريعة للمناطق التجارية، مما يزيد من القيمة الإضافية، بينما يضيف عصر العولمة التجارية إلى استخدامات الأرض.

تتمتع كوليرز إنترناشيونال بخبرة إقليمية تفوق العشرين عاماً كمستشار تطويري للعديد من المشاريع الضخمة ذات الاستخدامات المختلطة، بدءاً من المشاريع محدودة النطاق وحتى تشييد المدن الجديدة وإعادة تطوير المدن الحالية، والتي تبلغ مساحة أكثر من 150 مليون متر مربعًا، وانتقلت هذه الخبرة الطويلة، ترى كوليرز إنترناشيونال أن الأسعار المتوقعة لبعض الوجوه ضمن أحد المشاريع ذات الاستخدامات المختلطة جيدة التسويق قد تتراوح بين 15 و30% في دبي و45% في القاهرة، ولكن ذلك يتجسد سهم بشكل كبير عند دخول عناصر أخرى كالاستراحات البحرية و الفرص للخروج من المواقع التجارية والقرص الريفي الصحي، إضافة إلى عصر "القدرة على التجول" المحدود النطاق. تشير أبحاث كوليرز إنترناشيونال واختراعاتها الكبيرة في تطوير مصطلحات "الاستمرار للمجتمعات المختلطة" إلى أن النظرية النزوية في تسهيل الدخول على مستوى المكتبات للمشاريع ذات الاستخدامات المختلطة كطرق الدخول والمفاتيح، والمناطق التجارية، ومرافق البنية التحتية الاجتماعية، و修士 وللمنطقة المزخرفة لأعرار المنازل، والفناء فيها بحرية، كلها عناصر عالية الجاذبية في نظر الناس، كما أنها تمثل عصر جذب السريعة للمناطق التجارية، مما يزيد من القيمة الإضافية، بينما يضيف عصر العولمة التجارية إلى استخدامات الأرض.

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THE OVERALL REAL ESTATE LANDSCAPE IN THE MENA REGION CONTINUES TO ADAPT AND EVOLVE AROUND A YOUNGER, MORE EDUCATED AND PRICE SENSITIVE DEMOGRAPHIC AND CONSUMER-LED THINKING, PLANNING AND DELIVERY IS VITAL.

Developing a successful residential community with mixed use elements should deliver value for money and value for time for the residents, and additional revenue for the developer - creating a ‘third’ place. The value of this ‘third’ place is directly translated into price premiums enjoyed by such communities.
Mixed Use vs. Multi Use
THE TERM MIXED-USE CONTINUES TO EVOLVE AS COMMUNITIES AND SOCIETIES DEVELOP. SUCCESSFUL LARGE RESIDENTIAL DEVELOPMENTS ADDRESS THE APPROPRIATE BALANCE OF ACTIVITIES NECESSARY FOR A COMPLETE SUSTAINABLE COMMUNITY. THIS MEANS THE INCLUSION OF SCHOOLS, HEALTHCARE FACILITIES, CONVENIENCE RETAIL, LEISURE AND RECREATIONAL FACILITIES WITHIN THE DEVELOPMENT.

Mixed used developments must have three or more significant revenue producing uses, with significant physical and functional integration (including uninterrupted pedestal connections), and be developed in conformance with a coherent plan. Everything else that has a mix of uses is downgraded to a ‘multi use project.’

Source: Urban Land Institute
The synergy achieved by adding mixed-use elements to support a residential community can increase the attractiveness of the overall development, rent levels, sales volumes and both the investment value and the market value of the project; thus, the mixed-use project has the potential for creating greater total value than if each of the uses were developed in separate locations.

### Mixed Use Vs. Multi Use

- **Public Parks & Open Spaces**
- **Developers Brand**
- **Community Retail**
- **Schools**
- **Sports Facilities**
- **Healthcare**
- **Walkability**

**Price Premiums**

- **Cairo**
  - Up to 25% to 45%
- **Dubai**
  - Up to 15% to 30%
Price Premiums - A Two Tier Model
Open spaces, parks, neighbourhood-scale commercial/retail uses, accessibility and walkability, are some of the key mixed-use elements that increase house prices. Prices are higher in communities that are dominated by single-family use and in which multi-family residential, commercial, retail and public park uses are distributed at ratios supportable by the community. Determining these supportable ratios are based on catchment densities, which includes population, existing and forthcoming supply and current market performance.

Despite the perceived premium associated with Live, Work and Play neighborhood uses, residents still value homogeneous residential neighborhoods. Dubai Marina and Emirates Living, for example, are popular residential communities in Dubai.

It is the added community infrastructure, such as nurseries, schools and clinics facilities, quality public realm that adds resonance, healthcare components and convenience retail in correct densities that converts a typical residential development into a sought-after residential community. In the example of Dubai Marina, the community is currently achieving a 25% price premium over the average house prices in Dubai due to the retail, tram and metro. Similarly, Uptown Cairo, a predominant residential development, is also priced at a premium, in this case reaching 45% over average house prices in New Cairo.

The above are just a few examples of the premiums achieved in key developments analyzed within Colliers hedonic price theory model. House prices within residential communities in Dubai featuring mixed-use elements generally command a premium of 15% above other communities. If developed by an established developer brand this premium can increase by a further 25% - 30%. This increase however, is considered relatively low compared to Cairo, which witnesses mixed-use residential communities achieving a 20% - 30% price premium, while brand premium can add a further 35% - 45%.
UAE:
Price Premium Model: Mixed use communities and brand premiums.

<table>
<thead>
<tr>
<th>BRAND PREMIUM</th>
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MAXIMUM PRICE PREMIUM AVAILABLE
26% - 30%           14% - 16%   40% - 46%

CAIRO:
Price Premium Model: Mixed use communities and brand premiums.

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MAXIMUM PRICE PREMIUM AVAILABLE
25% - 45%           20% - 30%   55% - 75%
TIER 2: A Second Tier in the Price Premium Model - Views

Premiums based on views are incremental, starting from a garden views to water views to golf course views - which generally commands the highest premium in the region. In the UAE, a residential unit with unobstructed golf views can reach up to 36%, while in Cairo, this premium reaches 40%.

UAE:
PRICE PREMIUM MODEL:
Price Premiums for Views (5% to 15%++)
Source: Colliers International Research 2016

Cairo:
PRICE PREMIUM MODEL:
Price Premiums for Views (5% to 30%++)
Source: Colliers International Research 2016
From a Standard Residential Development to a Residential Community
From a Standard Residential Development to a Residential Community:

PRICE PREMIUMS EXPLAINED ON A LOCAL AND GLOBAL PERSPECTIVE

FROM 0% TO A 30% Price Premium

Walkability

Convenience/community retail

Open space/gardens/parks
Retail Elements

Global research indicates a neighbourhood movie theater can raise residential property values between 14% - 30%, while an upscale grocery store can increase the values by an average of 20%, compared to communities with limited or no retail facilities. According to Colliers research in markets such as the UAE and Cairo, a development with supportable retail facilities achieve a price premium of 15% - 20%, compared to communities with limited retail facilities.

With 65% of Dubai’s resident population within the Gen X segment (the 40’s and 30’s age groups are known to enjoy dinning and spending their leisure time outside their homes), it is not surprising that they are looking for sociable communities. This means having sufficient provisions for community retail and F&B options within the development. In the local retail landscape, we witnessed the dramatic shift of F&B becoming the new ‘anchor’ even within shopping malls. 10 years ago the average shopping mall contained 8% - 10% of F&B tenants, while this has now reached 20% - 25%. This also translates directly into community retail requirements.

Coffee shops, restaurants, medical clinics, dry cleaners, pharmacies, supporting retail and community facilities add personality, if done correctly. A lively street scene meets the lifestyle needs of the community residents and this can also create habitual or repetitive traffic flow from outside the primary catchment area. Increases in footfall translates into higher retail spending density.

The Price Premium for:
RETAIL ELEMENTS WITHIN
A RESIDENTIAL COMMUNITY

INTERNATIONAL

- A study conducted by AIER (American Institute for Economic Research) states that the majority of the millenial generation prioritizes quality of life factors such as a robust restaurant scene, when deciding where to live.
- According to the Australian Real Estate Institute of Queensland (REIQ) shopping centres, cafes and restaurants are all desirable aspects of suburban living.
- A neighborhood cinema can raise residential property values between 14% - 30% (Portland Tribune).
- Upscale grocery store can increase the value of residential property by an average of 20%.
- Waitrose effect is a 12% price premium.

COLLIERS MENA RESEARCH / LOCAL PRICE PREMIUM

- Development with supportable retail facilities achieve a price premium of 15% - 20%.

SOURCES

- Price Premium to 15%
- 20%
- 14% to 30%
Adding parks, jogging and cycling tracks, and increasing the walkability in general can function as a key attraction for a residential development. Incorporating open spaces not only adds to the aesthetic appeal of the overall development, but there are a number of documented evidence globally that the benefits of greater walkability can be capitalized into increased house prices.

**WALKABILITY WITHIN A RESIDENTIAL COMMUNITY INCREASES HOME VALUES UP TO 9%, WHILE A PARK/GARDEN VIEW FROM AN INDIVIDUAL UNIT CAN ATTRACT A 4% - 6% PREMIUM.**

| International Conference on Environmental Science and Development: Large softscape and hardscape expenditure on the residential development can increase house value and will result in a higher selling price |
| Chartered Association of Building Engineers (CABE): 85% of people surveyed felt that the quality of public space and the built environment has a direct impact on their lives and on the way they feel |
| Houses in streets where there were trees between the pavement and the road fetched an average of US$7,000 more than houses on tree-less streets |

### INTERNATIONAL PRICE PREMIUM

- Walkability increased values up to 9%, depending on property type
- A park being located 40 feet from the house, increases value by 33%, 9% at 1,000 feet, and 4% at 2,500 feet

### LOCAL PRICE PREMIUM

- A park/garden view can attract a 4% - 6% premium
- A park being located 40 feet from the house, increases value by 33%, 9% at 1,000 feet, and 4% at 2,500 feet

<table>
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**Price Premium for: PARKS | OPEN SPACES | WALKABILITY ELEMENTS WITHIN A RESIDENTIAL COMMUNITY**
Schools

In an international context, the value-maximizing distance between a residential unit and a school is between 300 and 500 metres, that is, roughly, a 9–15 minute walk from home. In markets such as Dubai and Cairo where the climate does not encourage walking, residents generally prefer a 20 - 30 minute drive to the school. According to Colliers research, a school within a master planned community can add a price premium of 10% – 15% on house prices. However, there is little / no desirability of living just adjacent or opposite to the school premises, given traffic congestions and noise – so there is a need to recognize the difference between proximity and accessibility. However wrongly placed or inappropriate quality schools can have a negative impact on prices; traffic congestion restricting access to the development or a mismatch between the economic profile of the catchment area and the school need to be considered.

In UAE, the dominance of the Generation X demographic in the local market (with children within the ages of 5 – 14) drives up demand for residential communities in proximity to primary schools. Schools ranked ‘outstanding’ and ‘good’ are the most sought after schools in Dubai, and the need to live in close proximity to these institutions are prioritized by households who can afford the rent / mortgage payments.

In Cairo for example, the upmarket American International School is located within Cairo Festival City, where house prices are approximately 50% above the average prices in New Cairo.
Accessibility/Transportation

Ingress and egress to and from the development and accessibility and travel time to key office districts is a key driver for property value. Transit-oriented developments generally enjoy a 20%-25% premium in property value over comparable developments that are not located near public transit. In the local context however, price premiums for developments with easy access to public transport is subject to the target market of the development. In the case of the mid-to-low income residents, accessibility to a metro / bus station is priority. For the upper-mid to high income segment, accessibility to the main highways are of concern.

Rents in close proximity to the metro stations attract premiums of 10% - 15% higher than similar developments away from the stations. Global benchmarks studied suggests much higher premiums, being subject to the dependency on public transport.

Access to public transportation drops the real cost of housing by reducing dependency on cars. Housing units with better access to public transportation, such as metro stations and bus stops, enjoy a higher sales value than those with similar characteristics but with limited access. Colliers expects that as Dubai activates more of its metro lines and network this will bring the city more in line with the global trends.

According to the Environmental and Energy Study Institute (EESI), the American Public Transportation Association (APTA), and the National Association of Realtors (NAR), residential properties within one-half mile of a fixed-rail transit station held their value between 2006 and 2011.

The creation of a community is especially important for the Millennial generation. This young generation has been making real estate decisions that demonstrate an interest in driving less, walking more, and being more dependent on high-frequency public transportation.

Rents in proximity to metro stations are currently 20% - 25% higher than similar developments away from the stations.

Transit-oriented developments enjoy a 20%-25% premium in property value over comparable developments that are not located near public transit.

Developments in close proximity to Metro stations achieve a price premium of 10% - 15%.
Conclusion

Successful mixed-use developments maximize land efficiently, integrates and maintains synergy between uses, mitigates traffic and are generally designed to maintain a continuous flow through the development. The price premium of a house is reflected not only on location and build quality, but more so on the availability of on-site social/ mixed-use elements, i.e. convenience retail facilities and services, restaurants, green space, schooling, walkability and accessibility to transport.

Mixing land uses in correct densities that are supportable by the community yield positive effects on prices. A more diverse neighbourhood is positively valued compared to neighbourhoods with limited mixed-use elements. Incorporating sustainable ratios of land use leads to a positive impact on house prices. These elements include retail/ F&B facilities, schools/ nurseries, community parks and public realm spaces. However, the density of these supporting land uses is primarily dependent on occupier and catchment demand.

A mixed-use development is not a standardized product. Its elements and densities cannot be replicated from one site to another. Careful consideration of demand and supply fundamentals of each asset class alongside proper integration of community infrastructure facilities, such as education, healthcare and retail/ leisure is needed.

These social elements create the essential ‘glue’ that holds a development together. The strength or density of these essential elements determine the success of a development, and pricing these elements result in the added hedonic value or price premiums of a mixed-use development.

Traditionally residential investments were driven by Location. Today, return on investment depends on People, not just Property.

Contact Colliers International team to provide you advice on developing a market driven product and maximize the value of your development.
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