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# Enriching Real-Estate Through Sustainable Public Spaces The case of Dubai- UAE

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**ABSTRACT**

In the process of the ongoing urban planning strategies for developing smart cities, the concept of urban public square has not yet been given the attention of urbanists and city planners in the Middle East and North Africa (MENA) region. More focus was given by architects and developers on saturating the market with iconic smart buildings rather than developing more livable communities with public spaces and plazas for people to connect. The overall aim of this paper is to highlight the key role that the real state sector can play to foster developing public spaces and squares as an integral part of smart urbanism. The issue of developing urban public squares in Dubai new communities and formulating policies for including such spaces in new districts and cities should be closely examined. The focus should be on enriching the real estate sector by regulating a concept of injecting urban public squares in the new smart and sustainable urbanism in Dubai to perform as a sociocultural entity within the fabric of new communities for the sake of improving social life and developing vibrant environment. With keywords such as smart city, public squares, social, urban design, livability; and sustainability, this write up makes the case of sustainable urbanization.

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## 1. Introduction

The Approximately two-decades time of smart urbanism has been developed and shaped to label Dubai as one of the global iconic contemporary model city. The real estate sector has been the key pillar in connecting many interdisciplinary of stakeholders that represent all aspects of the industry, including property owners, developers, architects, urban planners, appraisers, public and governmental officials, urban planning decision-makers, real estate brokers, financiers, and academics (Boodhun, 2016). In the United Arab Emirates (UAE), the urban public square was a prominent feature in most traditional communities, but, since the late 1960s, this urban feature has gradually disappeared from urban planning, Figure 1 shows Al Shandagah old city with few small public squares and courtyards (Ezzeddine, 2018). A consequence of this is that the social fabric of community life has been eroded. Despite support from the UAE leadership and regulatory authorities for developing sustainable communities in line with UN's Global Compact Sustainable Development Goals (SDGs), the gap between social life and community urban planning is yet to be filled.

Today, urban design players in collaboration with urban planning decision-makers are thinking more broadly about how to utilize efficiently every square meter of the land to gain an economic boost (Ezzeddine & Al-Hajj, 2014). This paper addresses the vital role that the real estate agents can play to enrich liveability and social life in future aimed smart cities by closely collaborating with other stakeholders in developing more open public spaces (Carmona et al. 2008). As an example, public urban square as a pulsing heart urban element can be a key business hub in the city and a central attraction to bring economic rewards to developers and investors. Moreover, urban and economy scholars inferred from their conducted researches that urban public squares could be a workshop arena to bring diverse stakeholders together to share a vision for enhancing trading, business, and economy aspects (Krasny et al. 2013). It is the time for the real estate key players to revive public square in the future smart city through a place-making process that can:

- Foster private and governmental investment and catalyze entrepreneurial activities.
- Highlight a community's unique values, encourage volunteerism, and nurture identity.
- Draw diverse users and serve as a city that offers many choices of things to do such as, socializing, entertaining, dining, and interacting with different types of arts, etc.

The researcher envisages that there still is a lot of misinterpretation about what model or concept smart city stand for, or can be realized (Figure 2). Within this context, smart city represents a conceptual urban development model that aims to pave a road towards a liveable future urbanism that focuses on the needs and dreams of people and not limited to smart technology and innovations (Ezzeddine, 2018).

What is needed, then, is more focus on defining clearer urban planning strategy for developing sustainable smart cities that include liveable communities.

After this introduction, considering public urban square as an urban element and part of the smart city fabric, the next section briefly highlights the differentiation between urban design and urban planning with respect to their procedures and implementations. The following section presents the paper's research methodology of two case studies and survey conducted by the researcher. Then, the results of each of the two-case studies analysis presented. The paper closes with recommendations and conclusions about urban planning policy framework for the development of urban public squares for the new aimed smart cities in Dubai. This paper is as well supplemented by empirical data and detailed tables that are included in following sections.

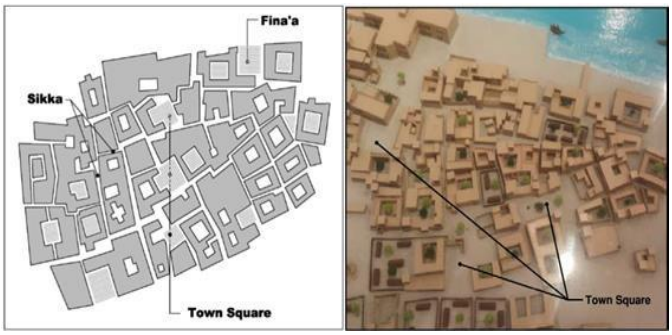



**Fig. 1:** Public Squares within the old town – Dubai Deira (By author)



**Fig. 2:** A Model of urban public square- Brasov-Romania

(Source:https://images.app.goo.gl/Pv4YNXv5jGNdB 5k46)

## 2. Understanding Urban Design and Urban Planning

There is a big difference between urban design and urban planning. Several scholars and urbanists have interpreted the difference between the two terms from their practical experience or academy perspective (Cohen, 2013). However, the distinct differences that could be a common understanding are:

### 2.1. Urban Design

is the procedure and technical process of designing, shaping and forming the physical features and components of cities, towns, communities, and villages. In parallel, the urban designer is to allow for the provision of providing services to residents and visitors in compliance with all local authorities' regulations and codes (Frumkin et al. 2004). For example, urban design involves creative ideas in designing streetscapes, parks, plazas and different typologies of public open spaces, with the objective and goal of developing urban areas attractive, functional, smart and sustainable (Byrne & Sipe, 2010). Essentially to add, urban design is a vital process to draw a connection between people, strands of place-making, and as well to link social life bridges. Urban design demands an understanding of a wide range of subjects from physical geography to social science, and an appreciation for disciplines, such as real estate development, urban economics, political economy, and social theory (Harvey, 2010).

### 2.2. Urban Planning

is a technical and political procedure concerned with the development of land use and the built environment including the design of infrastructure, roads, services network, communications, and transportation (Nam et al. 2011). Moreover, the urban planning process is also referred to as urban and town planning, regional planning, city planning, rural planning, urban development or some combination in various global regions (Campbell, 1996). Urban planning is turned to be a separate professional independent discipline that performs without the architecture influence but remains with the cognate fields of other disciplines such as landscape architecture, civil engineering, and public administration to achieve strategic, policy and sustainability goals (Cuthbert,2008).

Based on the above analysis and comparison between urban design and urban planning, the researcher as an architect and urban planner examined by empirical case studies that urban planning that aims to develop sustainable and smart cities can hardly be achieved without injecting gathering and entertainment places to connect people and build social environment (Ezzeddine,2018). According to Schneider et al. (2010) the real estate market indicates that merging retail, open spaces, shopping, and entertainment facilities into the city urban fabric enriches the real estate market and opens opportunities for long term investment that enhances the economic conditions.

## 3. The Value of Urban Public Square (UPS) in Urban design

A UPS can incorporate many essential cultural values by considering community social, economic and environmental attributes. Thus, an important role of the UPS is to enhance social life (children`s play and family gatherings), recreation (events and celebrations), health (sport and exercise) and leisure (Dines, Cattell, Gesler & Curtis, 2006), all of which will benefit community users

Furthermore, a UPS creates strong connections and interaction between people sharing the same neighbourhood and is recognised for its contribution to the unique character of community identity and neighbourhoods, cultural heritage value, and tourism potential (PPS, 2010). In recent years, UAE society has seen a change in people's lifestyle that influences the need for public open spaces. These include:

- Changes in recreational and leisure activities– mainly seen as an emphasis on recreational and sporting events, specifically with a demand from the youth for outdoor areas and open spaces which will accommodate their interests and pursuits (Jenkins and Pigram, 2004). The UAE 'outdoor lifestyle' is growing in popularity. Furthermore, interest in competitive sport has grown substantially in the UAE. Growing economic prosperity has seen an increase in disposable income for people to spend on recreational and leisure activities (Spirou, 2011).

- Increased level of understanding and health awareness of the benefits and advantages of physical activity has led to constant and regular exercise and need for open spaces for walking, recreation, and cycling (Shores and West, 2008). Health institutes and academic research predict that people's life expectancy is increasing, and the need for health services will grow accordingly. Medical reports in the UAE also indicate that obesity and physical inactivity among women will be major health risk factors (Al Zaabi, Shah, Sheek-Hussein, Abdulle, Al Junaibi & Loney, 2016). An ageing population will increase the need and demand for public squares and other types of outdoor spaces to provide more specialised recreation and leisure opportunities. It is a collaborative role between the federal urban planning policy and all health institutions in the UAE to address how access to


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nature and connectivity of people with outdoor spaces positively affect health and well-being (Berke, 2008).

- Changes in the work environment–longer daily working hours have resulted in less time for entertainment and recreation (Aguiar and Hurst, 2007) and, although some groups in different sectors have more flexible working hours, they lack access to outdoor open spaces where they can relax and exercise. Moreover, Carmona et al. (2008) provides an inclusive overview that a good outdoor environment is a stimulating and comfortable open public space with activities and a diversity of entertainment facilities that bring people together. Moreover, the Project for Public Space (PPS, 2000) analyzed hundreds of public spaces around the world, conclude that achieving

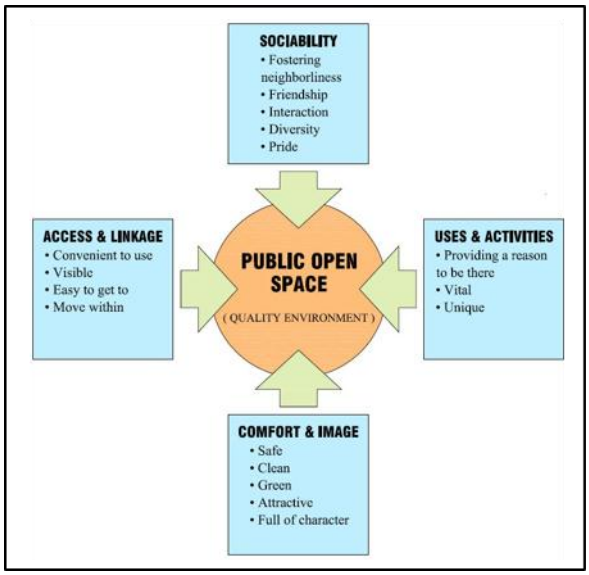



Fig. 3: The key Qualities for Public Space (By author)

The researcher argues that public spaces without the above list of key urban qualities are likely to be alienating, unusable, and simply uncomfortable, indicating failure in those spaces design, management or both.

## 4. Cases of applied Urban Public Spaces

The UAE cities and mainly Abu Dhabi and Dubai, public open spaces are a mixture of Middle–Eastern and Western-style, although there are very few of them (Crot, 2013). This paper claims that the urban planning process currently disregards the provision of public spaces and squares for newly-developed communities (Ezzeddine and Al-Hajj, 2014). Furthermore, the researcher argues that the quality in terms of the liveability of existing public spaces is found wanting. A description of the selected case studies is provided below. To closely examine the value proposition for the real estate sector involvement in the developmenand operation of community open public spaces, the researcher purposefully selected two case studies to uncover empirical evidences on how valuable to the developers to invest in creating open spaces in their new developed properties.

a high-quality public space environment will require four key qualities (see Figure 3):

- Access and Linkage- convenient and easy to get in, visible, and smooth move within.
- Uses and activities- vital and unique, and providing encouragement to be there.
- Comfort and image- green, safe, clean and attractive.
- Sociability- friendship, interaction, diversity and fostering neighbors' connection.

### 4.1 Case Study 1: Emaar Square Complex (ESC)–Burj Khalifa Area–Dubai

To investigate people's opinions and preferences for urban squares and establish an understanding of users' needs and requirements, a case study approach is the best way to demonstrate relevance of a concept.

ESC is a twin commercial and business center near the Burj Khalifa which is described as the world "Global Icon". It is an example of a central square surrounded by three office buildings, which comprise six levels each. The leasable area is fully occupied annually. This square is used as a livable and business space for the staff, who work there as they gather for lunch and short meetings in the outlets linked to the square. Besides, visitors and the public access the offices building through the central square that is connected to the lobbies with the staff lifts. The soft and hardscape environments create substantial interactions between the square and its users (Figures 4 & 5).

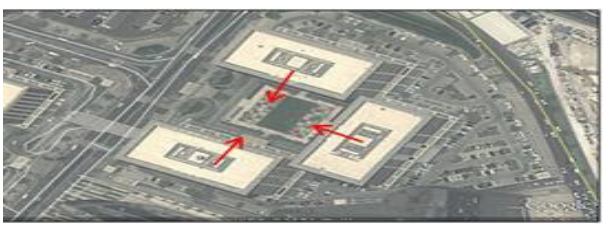


**Fig. 4:** Emaar Square Aerial View Source: (Google Earth)



**Fig. 5:** Emaar Central Public

Information on this case study was gathered from the period of December 2013 to April 2014. The objective was to assess ESC users' level of experience and their levels of satisfaction about having a central square space overlooked by the three office blocks and their associated facilities. A survey was designed to investigate users' perceptions followed by structured interviews to evaluate the opinions of square space provision by professionals. The survey consisted of the following questions:

How far has the ESC Central Square improved employee productivity?

To what extent do users feel that the ESC Central Square creates social interaction?

What makes ESC Central Square a point of attraction?

ESC Central Square is designed to accommodate social and business interaction spaces, and invite and attract the urban community of the Burj Khalifa area. Water features and comfort are highly appreciated in the urban setting of the square.

ESC Central Square is primarily seen as a place used for relaxation, sitting, meeting and time off for employees and visitors, rather than just being a place to walk through. The quality of this Central Square could be assessed by the number of people that frequently visit and enjoy this space.

A two-day survey was conducted at different times of the day to gather people's opinions and their overall feedback and satisfaction of the existence of this square and the extent to which different people felt that the square had influenced their business environment and quality of their lives. More than 35 respondents completed the survey and offered their feedback.

**Figure 6.** shows the high level of satisfaction the staff, employees, clients, and visitors had concerning the impact the Emaar Central Square had on their business environment. Although an average of six percent said that the square was not an important addition to the environment and 10 percent were not sure, but 80 percent of the respondents were very positive about the value the square added to their business environment.

**Fig. 6.** The impact of Emaar Central Square on users' business environment (By author)

4.2 Case Study 2: The researcher's empirical design study (Residential Community Resort in Fujairah)

A profitable and feasible project is the fundamental aim of any property developer prior to the marketing and promotion process. The past fifteen years have seen increasingly rapid property development and substantial competition between developers, each trying to promote the most attractive facilities in their developments. However, this rapid development has had a serious effect on the final product delivered to the end-user. Recent evidence and the market survey conducted by the researcher showed that people are attracted to investing in properties that include family open spaces and entertainment facilities. This section discusses an empirical design prepared by the researcher for a residential community resort in the Emirate of Fujairah (Khorfakan City) in the UAE. The researcher, being an architect- Planner, was appointed by a property developer to design a 420-unit resort with varying dwelling typologies such as (studio, one bedroom, two bedrooms, three bedrooms and penthouses).

The U-shaped design of the seven-block development (A, B, C. D, E, F & G) as shown in Figure 7 forms a central open space/plaza on the top of the complex podium. The project developer's intention was to develop a feasible low-cost project with minimum outdoor facilities. As per the developer's marketing plan, the project launch target date in the market was the beginning of 2018 with no consideration of any postponement. Therefore, the project was launched to the market without considering the central space as a family gathering place, with a limited outdoor landscaped zone. During the final design stage, however, the researcher encouraged the developer to include a central family plaza in the u-shape space as a focal family entertainment zone.

Stage 1: Project Launch (January and February 2018)

This section presents the first stage of launching the resort complex to the market in January and February 2018. The researcher's argument and discussion with the developer was that launching the project in an early stage prior to finalising the outdoor spaces, mainly the central plaza would have a negative impact on the sales targets as planned by the developer. In addition, launching the project limiting the outdoor spaces to a landscaped area without taking account of the need for an outdoor zone for families would weaken the attraction of buyers to invest in the complex and would also reduce the sales revenue. Figure 7 indicates the outdoor plaza as walkable landscaped areas without family activity zones. Moreover, the month of January 2018 indicates that only 67 units out of 420 were sold representing 16% of the total expected sellable area.


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**Fig. 7.** Stage 1 layout – Limited outdoor area to landscaping without family entertainment facilities

The typology of the sold units was mainly limited to studios and one-bedroom units. January's sales reflect a lack of buyers' interest in investing in the complex due to unavailability of family gathering and social entertainment facilities. February's sales were slow and the target of 20% of the total sellable area was not reached. This relates to the main reason highlighted during the period of January which, in the view of the researcher, affirmed that the community had no open plaza or family outdoor facilities. The sales during the two months of January and February led to a discussion between the researcher and the developer on how to enhance the design in order to increase the sales in the short term. The researcher suggested reconsidering the design by including spaces for outdoor activities within the property. In the view of the results, the researcher suggested that the developer should include more family entertainment facilities and create a social environment within the complex. The following section discusses the launch of stage 2 and includes the sales for March and April 2018 after including and inserting the central plaza in the U-shape setting of the seven dwelling units blocks as illustrated in Figure 8.

Stage 2: Project Launch (March and April 2018)

This section presents the results achieved after the re-launch of the revised project layout proposed by the researcher which comprised a central family gathering and entertainment plaza that included three zones (a family gathering place, children's play zone and swimming pool deck) as shown in Figure 8.




**Fig. 8.** Stage 2 layout – The residential development includes outdoor family entertainment facilities

**Table 1.** Data collected from the developer indicating the selling ratios over four months

**Table 1.** below shows the sales per unit type over four months between January and April 2018.

| **Dwelling Details** | **Project Launch without family Plaza** | **Project Re-Launch with Family Plaza** | | | | |
|---|---|---|---|---|---|---|
| Dwelling unit Type | No. | Type % | Units sold January 2018 | Units sold February 2018 | Units sold March 2018 | Units sold April 2018 |
| Studio | 85 | 20,50 | 24 units | 32 units | 48 units | 77 units |
| 1 Bedroom | 220 | 52,50 | 32 units | 38 units | 145 units | 195 units |
| 2 Bedroom | 75 | 18,00 | 9 units | 11 unit | 47 units | 65 units |
| 3 Bedroom | 35 | 8 | 2 units | 3 units | 18 units | 31 units |
| Penthouse | 5 | 1 | Nil | Nil | 2 Units | 4 Units |
| Total | 420 | 100 | 67 units = 16 % | 84 units = 20 % | 260 units = 62% | 372 units = 88 % |

Contrary to expectations and as per the marketing data collected from the developer, the ratio of sales increased to 62% at the end of March and escalated to 88% at the end of April (see Table 1 and Figure 9).

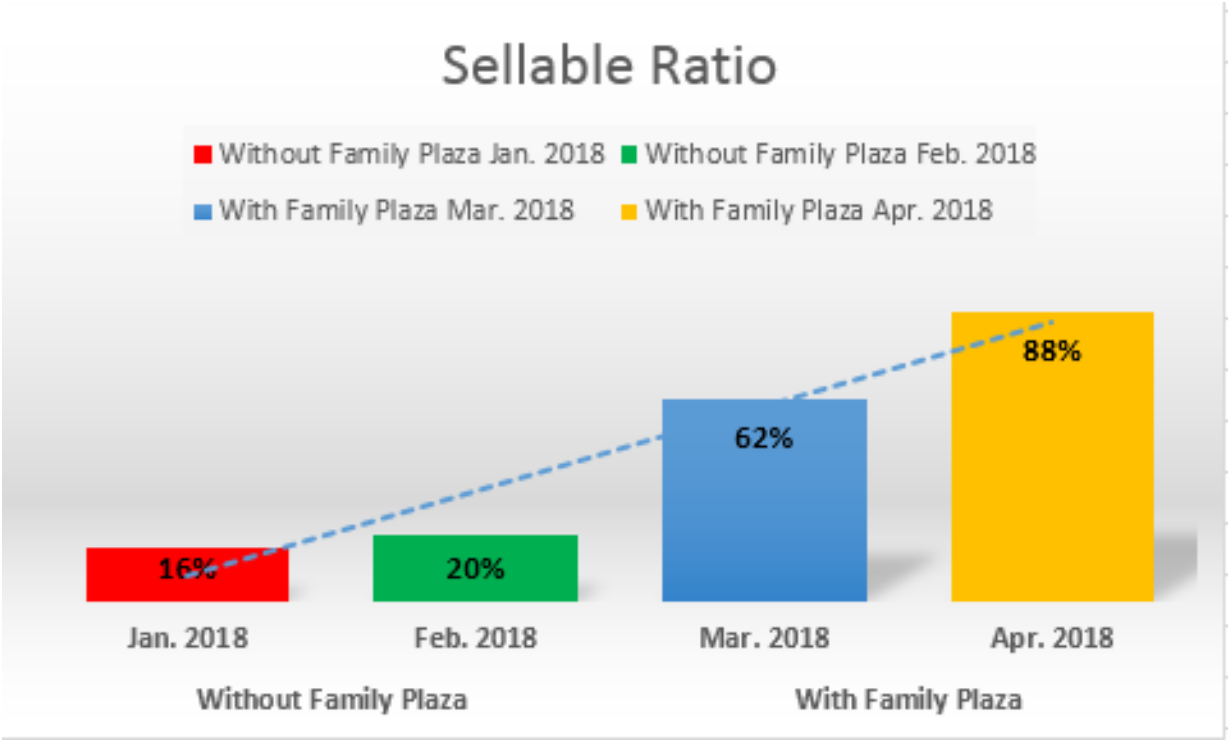



**Fig. 9.** Percentage of sales over four months

The findings of the second case study support the author's research that the outdoor public spaces are an element that attracts investment by the community. Moreover, the findings provide evidence of the following:

The property buyers, mainly the families, are in favour of investing in a liveable place where all entertainment and social facilities are available. The central family plaza was the core element in increasing the sales revenue.

The central plaza is a secure and a safe place that can house the entertainment facilities and can be easily observed from the dwelling units.

A variety of entertainment facilities are positioned in one area under the control of parents and the operator.

The outdoor family area for social interaction and entertainment within any residential complex increases the selling rate and increases the rate of return of revenue to developers.

Discussion

This section synthesises the findings of the two case study of previous section. The example of Dubai and its public open spaces, particularly the public square, has illustrated the problem of the negative impact of removing public squares from city neighbourhoods and the lack of interaction between groups of community occupants and users (Ezzeddine, 2018). In this paper, the aim of the discussion is to link the data collected from the literature review and documents as secondary data with the primary data from the empirical fieldwork gathered by means of direct observation, and case studies. Moreover, this paper returns to the discussion of understanding the public square in the urban planning system and avoiding isolating such urban element from the urban design process. Another interesting highlight is considering the role of the public square in reshaping urban growth and reflects upon the social interaction that the public square promotes between the community occupants, and influences everyday life. Finally, this paper suggests a new, structured planning policy that includes public participation in the urban design process and supports incorporating the public square into the master plans for cities.

This paper aimed to determine if there was a holistic understanding of the open public space in general and the public square specifically. According to Douglas (2014), the theory and literature on the outdoor urban environment, specifically the phenomenon of urban public squares, was not substantially presented by urban planning actors and scholars. Many urban scholars found this urban element essential, yet it is limited to specific locations and cultures (Amin, 2008). The history in different eras showed the public square as the core of life where social values thrive.

Moreover, most urban studies and research have addressed the public square as the heart of the city connected to a royal place or governmental district with restricted access (Takyi & Seidel, 2017). The researcher argues that public square must be connected to places where people live, work and interact. The literature review highlighted the work of Gehl (1987), Carmona et

al. (2008) and Carmona (2016) who were found to be the most rigorous urban planners as their research highlighted and covered many attributes of the urban public space. Nevertheless, many gaps were addressed, specifically how to merge this concept into the urban planning process. Furthermore, this paper recommends to inculde a new urban planning process framework that highlights the physical environmental attributes of urban public squares that enhance the liveable conditions of communities.

Furthermore, this paper suggested that there are major topics that should be studied when taking into consideration public squares in city planning. Overall, the public square should encompass the social, physical, economic, environmental and political attributes of the community. Researchers such as Sairina and Kumpulainen (2006) and Carmona et al. (2008) highlight the importance of involving the community in the urban planning process. The researcher partially supports the position of Carmona of approaching the participation of the public with extreme caution. The researcher argues that, despite the importance of consulting with the public about the urban planning process, controlled procedures should be used to collect opinions of different groups. For example, the researcher found from many interviewed developers and real estate agents that, in their view, the public square is a waste of space in community master planning, whereas the findings of this research from all the other stakeholders show the opposite, which indicates that those agents have their own personal interests at heart, which would actually negatively impact urban design and planning systems.

This research concludes that social life cannot be built without face-to-face interaction. Interaction cannot be developed without a place that provides for friendly dialogue (Mehan, 2016) such as a public square where people can gather and mingle. Urban planning scholars such as Carmona (2016) and Marshall (2016) and identified in their studies the public square as a place where people can entertain and relax by themselves, or with their friends and families. Quality of outdoor space, entertainment facilities, and social activities influence successful social interaction (Gehl, 1987). Moreover, the researcher stresses that the comprehensive meaning of quality includes two attributes: firstly, the physical appearance of public square facilities that directly connect and interact with people the space, such as quality of infrastructure, aesthetics of the space, soft and hardscaping, and architectural features and colours; secondly, supporting operational systems, such as maintenance, security, cleanliness, and facility management that do not directly involve the community.

Other scholars urban studies found that public square is mostly used during the daytime (Chiesura,2004), while this research has revealed from the findings collected from two case studies in Dubai (Emaar Square Complex and Residential complex in Fujairah), that relaxation, leisure and entertainment activities take place into the late evening, considering that public squares are provided with spotlights, seating around water features and greenery, and hard, paved surfaces for walking, and cycling and skateboarding. Furthermore, an urban square provides a breathing space for high-density communities. However, the researcher stresses that public squares can be dead space in the absence of safety and security which leads to fear. According to Gibbs (2012), the level of business and investment in the public square vary depending on whether the urban square is badly or well-planned.

Key findings and information resulted from the researcher's tailored survey with its main focus on social interaction and social cohesion in many high-density areas. The survey in the case studies, can inform local authorities, urban planning decision makers, developers, real estate agents and urban planners on how to facilitate social cohesion and interaction.

Conclusions and Recommendations

The public open spaces and plazas are vital elements for developing future smart cities and sustainable urbanism that Dubai is aiming to achieve by 2021 (Taha and Allan, 2019). The real estate sector is one of the key players to collaborate in drawing new urban planning vision and policy framework by monitoring the market demands and conditions (Allen, 2003).

A key issue to conclude is the importance for the real estate agents to realize that urban public space and sustainability are related, and sustainable urban development in the social life of a community is a need and not an urban accessory. The analysis findings from case study two revealed to the real estate and property stakeholders that people want their buildings or neighborhoods to foster positive social interactions - to have both a sense of healthy community and social support in times of need.

Children need access to play spaces. Residents also require proximity to nature and greenery. Moreover, this paper was intended to highlight the essence of a careful balancing act that involves collaborations between urban planners, designers, and local governments, to articulate policies for urban public squares that explicitly advance social interaction, environmental equity, and vibrant urban communities in Dubai. Apart from shaping the urban fabric, the urban squares are spaces to enrich the


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human experience of living in and around them. It is important to determine what kind of urbanism will best serve millions of people who live in the world's cities. What is evident to the researcher is that modern architecture is characterised by skyscrapers, and critical community assets such as civic institutions, schools and mixed-use complexes end up looking like citadels. This trend has damaged the fabric of the cities and diminishes the quality of social life. From the above recommendations suggested by the researcher, a strategy for open public squares should be drafted by the urban planning sector decision-makers using professional partnerships to coordinate and maximise the potential of liveability in the new and existing public open squares.

Note on Contributor

Issam Ezzeddine is a Dubai- based architect and urban planner, and a PhD holder in Public realm and sustainable urbanism.

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